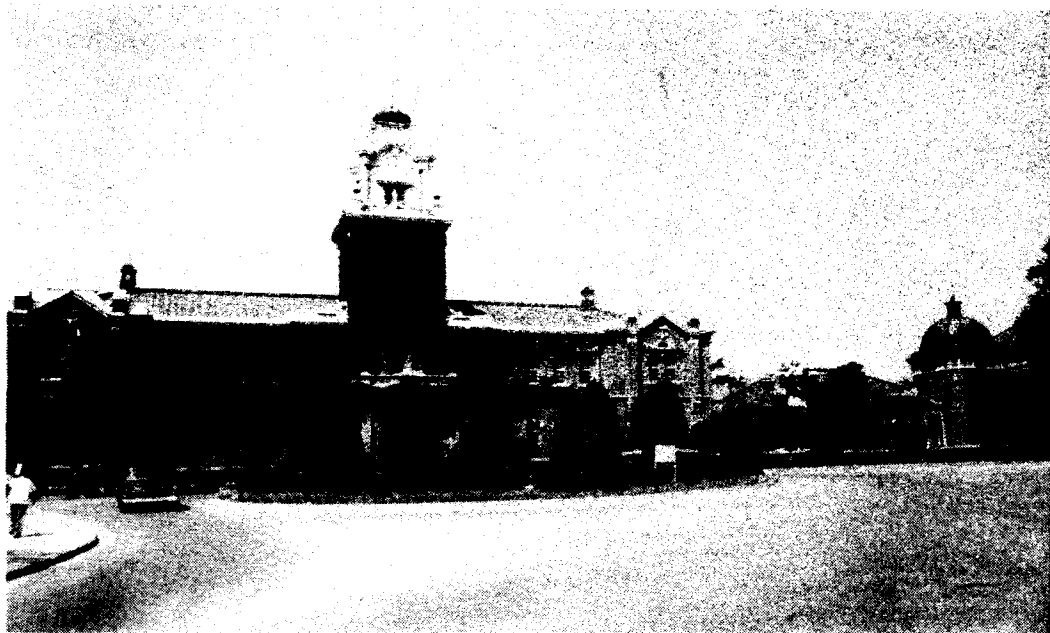


Final Report and Recommendations
on
TEACHING AND RESEARCH
in
PEDIATRICS

by

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I arrived in Seoul, Korea, with my family on September 5, 1959. My designation was Adviser in Pediatrics and my year in Korea has been spent mainly working in that special field. However the problems of pediatrics are in large part the problems of the whole of medicine. It is pertinent to the understanding of pediatrics in Korea that one understands something about medicine in general in Korea. I have attempted to gain an understanding of medicine in Korea through visits to hospitals, clinics and medical schools throughout the country. I have participated regularly in meetings with the Dean of Seoul National University (SNU) Medical School and with the Superintendent of SNU hospital. There have been many informal discussions with staff members of this medical school. Dr. Jean Curran and Dr. N. L. Gault evaluated the field of the medical sciences during my stay here and the two made a most efficient fact finding team. I learned much from them.

It has been said that medicine in Korea today is at about the stage of development that medicine in America was 40 or 50 years ago. If it were possible to apply an average to a stage of development then that might be approximately true. Consider medical licensure. A physician may receive a license to practice in Korea without ever attending medical school. He may qualify by examination alone. Or consider the performance rate of autopsies, a good indicator of medical development. In Korea very few autopsies are obtained, and those that are, are almost limited to charity patients. Or Consider that 90% of all babies are born at home, most of them without medical care. Han Yak, or magic medicine practitioners, though fewer in number, care for more people than do physicians. Druggists diagnose ills and dispense drugs, even to the extent of injecting the drugs, without restraint. All drugs are sold freely, over the counter, without prescriptions. The doctors' medical

societies are weak and ineffectual. In the United States the medical societies have been the greatest single factor in the improvement of medical standards. Most hospitalization occurs in so called private clinics, staffed by one or at the most a few doctors, answering to no effective system of regulation or accreditation. In the large national hospitals the policies of the government, in the past, have been heavily suppressive of efforts to improve patient care and medical teaching. The governmental policies have been suppressive, in the main, because the government would not pay the price necessary to effect the improvements in teaching and patient care.

Within the national medical schools themselves there has not been enough dedication to the principle that merit receives priority over seniority or to the concept that the scientific method offers the only true path to medical excellence.

To assess blame for these conditions is useful only if it points the way to remedy. To blame the people for their medical ignorance is useless; the ignorant cannot lead. To blame the government for its indifference helps little, for "government" is amorphous and hard to fix responsibility upon. The doctors, especially the medical school doctors, are neither ignorant nor indifferent; what they have seemed to lack is enough intensity of conviction to insist upon improvement. It is from the doctors, though, that improvement must be initiated; nobody else will do it.

It is necessary to state here that there are many favorable things that can be said. There are individual doctors in the medical schools who would rank with the best of their kind anywhere. There are leaders in the medical schools who have strong convictions, who buck the current and who at times endanger

their careers or even their physical selves for their convictions. Some very high grade research is being done regularly. The medical school at Seoul National University has literally risen from the ashes of five years ago to its present respectable state, an institution worthy of serious concern and criticism. The medical students are intelligent, and interested. They want, and are increasingly forceful in insisting upon, good teaching. The student revolution that changed the government of Korea has probably let loose other forces for the betterment of Korea. Youth, which for centuries has been absolutely subservient to age, has felt its power. Medicine, as well as other aspects of Korean life, will benefit from this liberated idealism and enthusiasm of youth.

Pediatrics in Korea, as elsewhere, has only grudgingly been accorded status by the older medical disciplines. In some of the national medical schools there is no pediatric ward. During our visit to two of the schools the pediatric in-patient census was one and three respectively. The students in these schools were spending one week on the pediatric clerkship and most of this time was spent listening to the professor lecture. There is no lack of potential pediatric patients in Korea. Korea is full of children. The Korean parent is a fond parent, anxious to help his children, but he is unable to discriminate between the cult healers and the legitimate physician, or between the poor and the good among the physicians themselves. The medical schools are often avoided because the parent does not trust the university doctors, he does not want his child experimented upon. At one school visited it seemed evident that the members of the medical school faculty were seeing the vast majority of available patients on a private basis and possibly even discouraging them from attending the medical school clinics. Again I say the potential teaching

material for pediatrics is available. The public must be educated and the doctor must cooperate to see that this material is utilized.

The Korean child is beset by most of the hazards of illness that affect the American child and in addition is affected by some conditions almost unique to Korea. Tuberculosis is the greatest health problem of adult and child alike. In the ward at the time of this writing, there are six children with tuberculous meningitis; about 50 are treated in this one hospital during the course of one year. Meningitic, pulmonary, bone, renal and miliary tuberculosis comprise the entire patient load of the 70 bed Hanow Children's Hospital and a majority of the beds of the 60 bed Children's Charity Hospital in Seoul. Seventy per cent of Korean children have positive tuberculin skin tests by school age. BCG vaccine is being manufactured now in Korea but only a very small proportion of the population receives it.

Diphtheria, another preventable disease, is common. About 85 cases a year are hospitalized at SNU Hospital. Smallpox has been controlled by a nationwide compulsory vaccination program. Neonatal tetanus is seen frequently and undoubtedly many more die from this disease unseen by a doctor. With most deliveries of babies taking place at home, usually being managed by an untrained neighbor or relative, we may assume that the infant mortality rate is very high. No valid figures are available. Such deaths are not reported; the infant simply being buried on the hillside.

The infant is raised on breast milk and very little else. When disease strikes the response is often poor. Kwasiorkor-like syndromes are exposed by episodes of gastro-enteritis which should be mild but often are fatal. As the child grows older he is subject to parasite infestation. This is almost



Central Corridor
which connects the six buildings of the hospital



Symbol of progress
The new operating room with observation dome

universal among the Koreans. One of the worst of the parasitic diseases is paragonimiasis, the lung fluke. This often involves the brain as well as the lung, causing convulsions, paralysis and death. This disease is especially tragic in that it is most often acquired when the parent feeds the child raw crayfish in an attempt to speed the eruption of measles. The crayfish is the intermediate host for *Paragonium Westermani*. Ascaris, whipworm and hookworm infestations are so common that treatment is not attempted unless symptoms occur.

Leprosy affects possibly 100,000 Koreans. Children are especially susceptible to leprosy but in the early stages it is hard to recognize so that the diagnosis was not made in our clinic during my stay here at Seoul National University.

Poliomyelitis and Japanese B encephalitis are epidemic in Korea, undeterred by immunization or public health measures. A small amount of poliomyelitis vaccine is available but even this at a cost most Koreans cannot afford. Mosquito control would control Japanese B encephalitis but mosquitos have not been controlled. A mouse brain preparation of encephalitis vaccine is being tried. This has been previously tried in Japan, without demonstrable benefits. It would seem that an unusual amount of leukemia is seen in Korean children and of this a greater proportion of myelogenous leukemia than is seen in the United States. Again no figures are available to sustain the impression. Aplastic anemias and blood disorders associated with hepato-splenomegaly also seem more common than in the United States.

There are some psychologic problems seen in Korean children but on the whole the children seem stable and happy. They are carried about as infants; the mother's breast is always readily available for nourishment and comfort. As

they grow older the competition for places in middle school, high school and college causes some troubles. The Korean boy is favored, the Korean girl is forced into a subservient role, hardly a happy state for the girl, but this too is changing with changing times.

Medicine at Seoul National University

The state of affairs of the medical school and of the hospital of Seoul National University by all accounts of previous advisers and by present observations has improved a great deal in the past few years. The improvements and the requirements in buildings, facilities and equipment will be better discussed by Dr. N. L. Gault, Jr. the overall medical adviser. I shall limit my discussion to the clinical aspects of medicine, the philosophy of patient care, of teaching and of research. I have seen my function as that of the constructive critic, in my role as adviser, and criticism implies dissatisfaction, so I must emphasize that there have been many things to praise and to be happy about. First I will list some of the items I have found to criticize. These items have been discussed repeatedly during my stay here and many of them were mentioned by previous advisers. They are listed here for re-emphasis.

In the first instance it has seemed to me that there is not a recognition by all of the staff that this school and hospital is a group of medical disciplines gathered together to function as a unit for the teaching of medical students the highest standards of patient care, and medical knowledge.

Item I. The out-patient clinics are organized to suit the whims of the patient who wishes to see a certain doctor, not organized for the most efficient use of patient and staff men for teaching the medical student. The reason has

been given that if the patient cannot have things his way he will not attend here, the income will be lost, and the government demands the income. This reduces the clinic to the level of the practitioner on the corner, and to competition with him. Small wonder few patients originate by doctor referral.

Item II. There is a widespread practice in the hospital of giving 50% glucose in the amounts of 20cc intravenously to patients because the patients "expect shots," or for some vague nutritional benefits. This has the effect of teaching the students expediency, and violates the concept of adherence to the scientific method.

Item III. Little if any interest has been shown by the medical staff in obtaining autopsies. There is agreement among the world leaders of medical education that autopsies are a fundamental requirement for excellence in a teaching institution. The argument offered here is that autopsies are in conflict with Korean culture, although in the past autopsies have been obtained on charity patients. (Agreement to permit an autopsy is one of the conditions under which charity patients are admitted.) After prizes and letters of commendation were offered by Dr. Gault and myself to internes and residents who obtained autopsies on pay patients, there were six autopsies obtained on pay patients in the course of three months, more than in the previous several years! This is another indication that culture patterns are not so strong as some contend and that they can be changed if people are willing to make the effort to change them.

Item IV. Submission of surgical specimens to the pathologist had been a prerogative of the surgeon. More often than not specimens were not submitted. This was apparently corrected by the formation of a tissue committee, and the

promulgation of a regulation by the Hospital Operating Committee that all surgical specimens be submitted to the pathologist. Months after this regulation was made it was being violated.

Item V. It was ordered by the Hospital Operating Committee that consultation with a pediatrician would be requested for all children admitted to services other than pediatrics. This was to be especially true for children admitted to the surgical service, before they were operated. This regulation has continued to be violated.

Item VI. The clinical laboratory service was unsatisfactory upon my arrival here and has remained unsatisfactory despite many pleas for improvement. Tuberculosis cultures are not done! Determinations for sodium and potassium, basic to good fluid therapy, are not done. Erythrocyte sedimentation rates are often reported as "zero" - a finding extremely rare from a reliable laboratory. On occasional checks there has been wide disparity between routine blood work done on the ward and in the laboratory. The staff has learned that scientific papers often cannot be documented with reports from the clinical laboratory. At times the results of cardiac catheterization are rendered almost useless by reports of blood gas analyses which are at complete variance with all the other findings.

Item VII. According to my own observations, the observations of other medical advisers, and the opinions of some able members of the Korean medical staff, the medical graduate student program here is not well designed to produce able clinicians in the various medical specialties. The emphasis is on the performance of some laboratory exercises which may be used as the basis of a thesis. The candidate may have very limited clinical experiences, knowledge or

skills. The quality of the research reported in masters or doctorate theses that have come to my attention has not seemed great enough to warrant the neglect of the development of clinical skills.

Item VIII. The medical school is forced to admit all students certified as satisfactory by the liberal arts college which is in charge of the pre-medical course. Fortunately most of the students appear to be of good caliber, however, once in the medical school almost no students are ever permanently failed out of the school. If a student fails an examination, he is allowed to repeat the examination until successful, or at times his grade is simply adjusted upward. The occasional student may be made to repeat a year, but if he is persistent, he will graduate. One student I was personally acquainted with held a full time job, which often required field trips, failed badly in a pediatric examination and in the make up examination, but graduated with his class.

Item IX. It has been reported to me by ex-patients and by some of the staff doctors as well, that an unfortunate general image of SNU Hospital is held by the public. The contention is that patients often are not treated kindly here. It is reported that some doctors have been arrogant and impolite, and that the nurses serve the doctors rather than the patients. These criticisms of the hospital have been made often enough so that there must be some validity to them. Previous advisers have stressed the concept that the hospital attitude must be "patient centered." Concern for the welfare of the patient must dominate the actions of the medical and nursing staff.

Item X. At a meeting early in the course of my stay here it was agreed that staphylococcic infections were a problem here, as they are almost everywhere in hospitals. A committee for the control of hospital infections was organized.

To date there has been no accumulation of data to indicate that the problem here has been evaluated nor have there been recommendations for the control of staphylococcal infections.

Item XI. The faculty, resident and intern staff and the students of the medical school and hospital are almost exclusively Seoul National University products starting with pre-medical training. This inbreeding tends to perpetuate undesirable as well as desirable aspects of the medical school. The admission of high grade applicants from other schools at any level of the training process would be stimulating and productive of much good.

Item XII. Junior members of the faculty, those with grades below assistant professor, have no direct voice in the faculty meetings, and the faculty meeting to a large extent controls the policies of the medical school. The junior faculty members are often the most highly trained members of their departments.

The above items of criticism are presented solely with the view of effecting improvements in the medical school and hospital. The correction of most of the conditions listed requires little more than the desire for correction on the part of those responsible. None of these corrections would cost much money, but without correction of these items no amount of money or equipment is going to make Seoul National University Medical School the first class school that it can be. The past few years have been full of improvements in physical plant, equipment and organization. Ten advisers in medicine, nursing and hospital administration have been here at SNU, all intensely concerned with the betterment of this institution. Close to fifty Korean participants in those fields have trained at the University of Minnesota and comprise a broad base upon which to build. Now it is time to insist on excellence in patient care, teaching and

research.

The key to the way of excellence is in the hands of the department heads.

In my opinion the school is fortunate in having a wise and vigorous man as dean. The power of the dean is circumscribed though, he must depend on the faculty and especially the department heads to help initiate and carry out improvements. Ideally the department head should be very able in his field. He should be willing to devote most of his working time to his department. He should have the perspective to see that no one department of a medical school can be independent at all of the other departments; that what happens in one affects all in their striving for excellence. He must set an example for his staff and for the students, an example in devotion to the truth, to the search for knowledge, to the welfare of the patient. He must be willing to go in the way that reason directs even though it runs counter to popular opinion or to the so called "culture pattern" of his time. He can influence thousands of young men and women as to the manner in which they will conduct themselves in their professional career.

It may be advisable here to list in some detail the activities of the clinical department head as I think they should be performed.

1. The department head will represent his department in the meetings of the faculty. He must be strong to defend the interests of his department but must always realize that the interests of the whole supersede the interests of the part, if there is conflict. He must insist that other departments perform up to the standard that he would like to see the medical school as a whole achieve.

2. He will hold regular meetings with the staff of his own department to establish policies, effect changes, and review progress.
3. He will supervise the careful selection of the residents and graduate students of his department and counsel with them regularly.
4. He will organize the clerkship activities in his department. He will insist that the clerks attend regularly and work hard. He will see that adequate teaching is provided for the clerks. He should participate directly in the teaching of clerks.
5. He will determine that grand rounds, seminars and similar conferences be held regularly and that their standard of performance is high.
6. He will always be alert for new ways and associations in which to expand the experience of his staff.
7. He will keep abreast of new knowledge in his field and encourage the staff and residents in regular readings of pertinent journals.
8. He will encourage the performance of clinical experiments and of laboratory experiments which offer the promise of contributing to basic medical knowledge. He will not permit the individual's time or the department's resources to be wasted on projects which will achieve nothing except a little boost up the academic ladder for the individual.
9. He will encourage the participation by his staff in activities which are of benefit to the community or the nation's health needs even though they may not be closely related to the functioning of his department.
10. He will closely supervise the care of the patients. He should make

regular rounds on his wards and visit the out-patient department frequently. Only by close attention to patient care can he know how his department is really functioning.

11. He will insist on vigorous efforts to obtain autopsies and be willing to personally participate in such efforts. He will have conferences to review all deaths.

The previous medical advisers have listed many of the improvements which had taken place or were started during there stay here. I may add several.

Item I. The clerkship time was greatly lengthened at the expense of lecture time. The total lecture hours in the last two years was reduced from 1200 to 700. On the pediatrics in-patient service the junior clerks are now spending one month compared to one week under the old system. An increased amount of time is also spent on medicine, surgery, gynecology and obstetrics in the junior year. Each department has prepared a detailed schedule for the clerks' activities. These changes are in accord with the beliefs of modern medical education. The clerks have expressed satisfaction with the new arrangement.

Item II. Interdepartmental lectures have been presented regularly. These act to bring together teachers from the various pre-clinical and clinical specialities to pool their knowledge on a single subject.

Item III. A new medical school library was opened. This is housed in conjunction with a reading room, student and faculty activities rooms, and a tea shop. The students have access to the current medical literature here and they are using the privilege well.

Item IV. Teaching affiliations with the National Medical Center were established. Students and residents from SNU are working at the National Medical Center. Grand rounds, seminars and conferences are participated in freely between the two institutions, and staff members of the National Medical Center have been appointed to the clinical faculty of SNU.

Item V. Two new clinics which emphasized the role of this hospital and school as institutions which must lead and serve the public were established. These are the well baby clinic and the family planning clinic.

Item VI. Various departments of the medical school and hospital have shown on awareness of their responsibilities and a devotion to their work as teachers and researchers. This has been due, in the main, to the efforts of one or two men in each department. Included in a list of these departments would be anesthesiology, roentgenology, gynecology, ophthalmology, neurosurgery, dermatology, pediatrics, anatomy, urology, parasitology, physiology, microbiology and possibly others I am less familiar with.

Item VII. Courses of continuation study for practicing physicians have been organized.

Item VIII. It has been agreed to publish a Journal of the Medical School of Seoul National University. Articles are being accepted, many have been rejected. The editors are to be commended for insisting on a high standard for the papers to be published.

Item IX. The hospital as a whole functioned in inspiring fashion during the demonstrations and riots of April, 1960. More than 200 wounded were treated here. Despite the severity of many of the wounds only 18 deaths occurred among



The Well Baby Clinic
On the day the picture was taken over 600
children were brought to the clinic

those hospitalized here. At the present time 17 of the wounded are still hospitalized at Seoul National University. The surgery department deserves the greatest share of the credit for the excellent work in April.

Item X. An isotope clinic was established under the aegis of the atomic energy commission of Korea and is directed by the superintendent of the hospital. Many patients with diseases of the thyroid gland have been treated here. Research projects are underway.

Item XI. A new operating room with a dome for overhead viewing of operations was completed. This is the first of its kind in Korea and is a great aid in the teaching of surgery to the medical students.

The Pediatric Department

The pediatric department had benefited from the association with the University of Minnesota before I arrived here. Dr. Edmund Flink had urged that all of the pediatric aged patients be brought together on one ward. This had been done, though the principle was often honored in the breach. Professor Lee, Dong Kee and Assistant Professor Hong, Chang Yee had spent one and two years respectively in the pediatric department of the University of Minnesota. They brought home ideas and techniques to improve the pediatric service and to help the other services. For example Dr. Hong has done cardiac catheterization and liver catheterization for the surgery and medicine departments. Dr. Lee and Dr. Hong had been previously trained in the Japanese style of clinical medicine. The advantages of clerkships, grand rounds, seminars and the western style of bedside teaching were almost unknown to them. Their return to Korea started the new era in pediatrics at SNU. Upon my arrival the department was functioning in

fairly good order. I learned quickly that there was little I could tell these pediatricians about the day to day problems of diagnosis and care of the patient. In fact I have been continually enlightened by them in the matter of diseases rarely if ever seen in the United States. The main problems or challenges as I saw them are listed and were attacked with varying degrees of success during my stay here.

1. Physical Arrangement, Organization and Staff.

The pediatric department is located on the west end of the second floor of the first building of the hospital. There are about 30 beds available on the ward to be shared by "regular" pediatrics and the pediatric patients of other services. Often the beds on this ward are occupied by adults, admitted when beds are available here and not available on the adult wards. Likewise, if the beds on the pediatric ward are filled and a child needs to be admitted, he is admitted to one of the adult wards. Patients are admitted to the wards without consultation with the head nurse or with the pediatric head resident. To the admission clerk a bed is a bed and no attention is paid to the kinds of illnesses of the patients occupying the beds. Most of the child's care is received from his relatives. No effort is made to regulate visiting. The ward at any one time will be full of people, 50 to 100, who come early and stay late, many spending the night, some sleeping on cots or air mattresses they bring in, others sharing the patient's bed. Cooking and laundry are done on the ward to meet the needs of the patient and the relatives. With the present shortage of nurses it is agreed that relatives must do much of the work of nurses, however one relative per patient would be sufficient for those needs, the remainder only contribute to a state of near confusion.



The Pediatric Ward



**A typical single-bed room
on the Pediatric Ward**



**A two-bed room
on the Pediatric Ward**

The pediatric full time staff consists of two full professors, one assistant professor, two instructors and one assistant. With medical school salaries ranging from 50,000 Hwan to 100,000 Hwan per month (the realistic exchange rate is now about 1200 Hwan per dollar) it can be seen that the staff must supplement their income. This is done by conducting their own clinics on off duty hours, unless they have other sources of income. To the credit of the pediatric staff it can be said that there was no evidence that they were neglecting their medical school and hospital duties in favor of their private clinics. The size of the staff is probably adequate to meet the needs of the pediatric department but it would be good if there was some elasticity to the table of organization so that full time positions could be made available for outstanding persons. There are a few people now on the clinical unpaid staff of the pediatric department. This was a recent innovation and does help to meet the needs of the department and to utilize the abilities of persons who often are anxious to help.

The equipment needs of a department such as pediatrics are not great. There are not enough instruments such as otoscopes, ophthalmoscopes and blood pressure apparatuses, but these are on order. Also on order are some specialized pieces of equipment for cardiac catheterization work. At present the department has a nearly adequate library, a camera and accessories, a 35 mm slide projector, two microscopes, a photo-electric hemometer and some equipment for blood chemistry determinations, the latter brought from Japan by Dr. Cho. There is a refrigerator, in working order, and a milk formula terminal sterilizer which does not work because of lack of hot water.

Additional research equipment will be needed when the research program is put on a more firm basis than at present.

The number of pediatric "residents" varies but at present consists of 10 men and women. Two of them are assigned to the National Medical Center, one to Seoul Electric Co. Hospital and one to Children's Charity Hospital. The term "resident" needs clarification. Strictly speaking a resident can be appointed only from the intern staff and has an official, paid (5000 Hwan per month) position on the hospital staff. Others, similar to residents in most all respects, are graduate students, theoretically limited to observation and not qualified to write orders on patients, for instance. In practice however, the two categories function much the same on pediatrics. In some departments there are literally enormous numbers of graduate students who come to make rounds and participate in conferences and do what patient care they can, but whose very numbers necessarily makes their chances for clinical experience very limited. I would suggest that in the future the category "graduate students" be eliminated, all be classified as residents and the total number be strictly limited to what the service can care for in providing clinical material. For pediatrics I think a total number of 10 residents is about right. This would provide residents for the various clinical aspects of the pediatric departments, for affiliations with other hospitals and leave one or two free for research. The amount of work expected from each resident can be increased greatly over what is demanded now, without any great hardship to the resident.

2. The Functioning of the Out-patient Department

The pediatric out-patient clinic was attended by one staff man, assisted by a resident each day. The students did little more than observe. The staff man was obligated by the system in effect at this hospital to see each patient. Little time could be taken for teaching. This has been partially improved by



**Immunization room at the well baby clinic.
American and Korean women volunteers
were essential in the success of the clinic**



History-taking and measurement room of the well baby clinic

having two staff men in attendance daily. The students are required to write histories and physicals which are inserted in the chart. Emphasis was placed on the taking of adequate histories, a problem of long standing and difficult of solution if we can judge by the recommendations of previous advisers. One major fault in the out-patient system, still uncorrected, is the matter of referral of patients to the various clinics by the admission clerk. For example, if a child presents with pain in the abdomen he will probably be referred to the surgery department by the admissions clerk, a non-medical person. It has been repeatedly recommended that all pediatric new patients be referred to the pediatric clinic for initial evaluation. Similar recommendations for pediatrics and for medicine had been made by Dr. Flink. Other departments oppose this as intruding upon their domain and to date their objections have prevailed.

3. The Well Baby Clinic.

The care of the normal infant with emphasis upon preventive rather than curative medicine is one of the prime functions of pediatrics. A well baby clinic was established. The hope was that babies would be brought early for health evaluation and for immunizations. The pediatric department would benefit from the opportunity for the residents and students to observe many normal children, and growth and development studies could be done to establish norms for Korean children. The success of the well baby clinic has exceeded expectations. As many as 360 babies have been seen on a typical clinic day which is held twice weekly. The demand has exceeded the supply of immunization material. The heavy attendance at this clinic may in part be due to the fact that no fee is charged but it also seems to indicate that the patient does not necessarily demand attention from a certain doctor. An encouraging by-product of the well baby clinic has been the

active participation in the clinic by wives of the staff doctors. Korean women have not been in the habit of doing public volunteer work of this kind. It should be said that the example was set by the participation of many American women, led by, if I may somewhat proudly say so, my wife.

4. The Material Available for Clinical Teaching.

The pediatric in-patient census is small. An average of 10 or 15 "regular" pediatric patients plus a similar number of surgical pediatric and a smaller number of contagious disease patients make up the available clinical material. Only a few newborns are in the hospital at any one time. Because this hospital has few free beds, only two at any one time for pediatrics, the patients' stay on the average is short. The shortage of free beds limits the number of interesting "teaching" cases which can be admitted, or followed for prolonged periods. To help correct this limited exposure to clinical material, affiliations with other hospitals were sought. We now have two residents at the National Medical Center, a large new western type hospital operated by Scandinavians. Students are attending the pediatric as well as other departments at that hospital. We have residents at Seoul Electric Co. Hospital which has about 30 pediatric beds, and at the Children's Charity Hospital which has 70 beds for sick children from the orphanages of Seoul. Pediatric clerks also attend these hospitals. Residents and students, often times accompanied by a staff member have visited orphanages regularly to help with the health problems of the orphans. An especially good arrangement has been with Holt Adoption Program. Here Dr. Ralph Ten Have is resident physician. There are about 300 children at Holt's, with the population changing frequently as the children are adopted and sent to America. Pneumocystis Carnii, a rare disease, has been seen frequently at the Holt agency

despite the good and vigorous efforts of Dr. Ten Have to protect the infants. In the course of his work he has done studies which have attracted the attention of the National Institute of Health of the United States. Projects of an investigative nature are planned for Holt's agency and it is hoped that our staff and students of SNU will benefit from participation in those studies. The well baby clinic of course has enlarged the clinical experience of our residents and students. Some studies on growth and development, anemia, and antibody response to Korean made Japanese B. encephalitis vaccine have been made, utilizing the well baby clinic patients.

5. The Head Resident.

The head residency system, as practiced in the United States, was not functioning on the pediatric service here, on my arrival. The head resident was spending much unfruitful time in the laboratory, to the detriment of his clinical responsibilities. Changes were effected so that now the head resident sees all pediatric patients daily, directly supervises the resident and intern staff, arranges for grand rounds and conferences, counsels the students and does all the other necessary things that fall to the lot of the good head resident.

6. Staff Rounds.

There had been little continuity of care of the patient by staff members on pediatrics. Rounds were made about once a week by each staff man with sometimes two men assigned to the same service. This was changed so that one staff man had one service for one month, with rounds being made three times weekly or oftener if necessary.

7. The Pediatric Clerkship.

Prior to April, 1960 the junior clerks spent one week on in-patient pediatrics. Even this short period of time was divided between SNU and the Seoul Electric Co. hospital. After the revision of the curriculum to enlarge the clerkship experience the junior clerkship on pediatrics was expanded to one month. With this increased time a meaningful program could be made for the clerks. The clerks are assigned in groups of about 3 to a pediatric resident. The resident acts as their adviser and supervises their activities. One-third of the group rotates to the National Medical Center for a week stay there. The clerks are assigned to patients as they are admitted. Histories, physicals and progress notes written by the clerks are attached to the patients' charts. Each staff man has rounds with the clerks once weekly. Subjects are assigned to each clerk to read and to report upon so that they will become familiar with the main topics of pediatrics. The clerks assist in the well baby clinic. They attend all scheduled grand rounds, seminars and conferences.

The senior clerks spend two weeks in the pediatric out-patient department. With the reorganization of that department to improve teaching, that experience is especially valuable.

Interesting comments have been heard from the clerks regarding the clerkships. Some have thought that their time was not regulated closely enough by the staff, others have said they had not enough time for independent reading! I have tried to encourage the principle that the function of the staff is to stimulate the student, to make him think and reason, not just to stuff knowledge into him. The patient should serve as a means to demonstrate principles as well as to act as a sort of focal point for the concentration of medical knowledge in a manner which

will be almost unforgettable to the student, in contrast to the knowledge which is transmitted by didactic lecture, regurgitated for the examination, and then almost forgotten. The Korean medical student needs constant encouragement to "go to the literature". He must, to a greater degree than now, assume the responsibility for his own education. Eventually it can be hoped that large blocks of free time will be made available so that the student can pursue some special interest in study or research.

8. The Pediatric Residency

In the United States the first concern of most pediatric residents is to acquire theoretical knowledge and clinical training which will enable him to qualify for and to successfully complete his board examinations. Many of course have research interests develop which make the boards assume secondary importance. In both instances, however, the desire for knowledge and understanding is almost palpable in the air. In Korea the resident usually is most interested in earning his Ph. D. degree. This is obtained by spending five years as a graduate student and writing a thesis. The examination is on the thesis and on little else, thus clinical ability is downgraded. It is true that board examinations for specialists have recently been instituted in Korea. This is given under the auspices of the Minister of Health but is in no way equivalent to the specialty board examinations given in the United States. It is hoped that the various national societies of the different specialities will develop their own board examinations to give more encouragement to the clinical aspects of graduate medical training.

It is unfortunate that some of the residents in Korea with whom I have become acquainted do not display that thirst for knowledge which is the first thing necessary in the development of the good clinician or scientist.

Improvement in this could come by more careful selection of the resident and by exhortation and example by the staff man. The pediatric residents have all been engaged or have been scheduled to participate in some sort of research work. Here, as in other departments, there has been more semblance than substance in some of the projects. This will improve in time though, it can be hoped, as the residents see research problems developing out of their clinical experiences.

9. Investigative and Research Activities of the Pediatric Department.

This has consisted, in the main, of the presentation of papers based on case reports or on data accumulated in the process of caring for patients. Very few prospective studies have been done. Some are now underway. A controlled study on the use of steroids in infectious disease has been started, using steroids donated by an American pharmaceutical company. A study of hemoglobin, serum iron, and serum copper of normal and anemic children has been started by Dr. Hong. Dr. Rie, Kook Choo has done and will continue studies on the anti-diuretic hormone. Dr. Moon, Heung Ro is doing studies on growth and development in infants and children.

A list of the projects now underway or planned for is included in the appendix. Also attached are samples of papers which have been presented at medical meetings in the past year.

10. Library.

Previous medical advisers recommended that the library be centralized, with all material being located in the medical school building. At present there is a small collection of volumes located on the second floor of the first hospital

building. All other books and journals, past and current, are located on the fourth floor of the medical school building. This removes the current journals by about two city blocks and four floors up from easy access by the clinical staff of the hospital. A partial reversal of this situation is in order. In the pediatric department a small library has been established. Most of the up to date text books in the field of pediatrics plus more or less complete series of pediatric journals contributed by the American Academy of Pediatrics and the Hennepin County Medical Library (Minneapolis) are included. A camera equipped to do copy work, microscopic photography, and pictures of patients was donated by the Minneapolis Pediatrics Society.

I would recommend that all departments have easy access to current medical journals and recent text books. This could be done either by establishing small libraries in each department or by the hospital establishing a library of current literature.

11. The Care of the Patient.

The pediatric department presents special problems because the distribution of the patients to various clinics, wards and services is determined in part by the age of the patient and in part by the nature of the medical problem of the patient. As mentioned above, all pediatric-aged patients should theoretically be on the pediatric ward, yet one may walk through the hospital and find children hospitalized in several different wards. The responsibilities for their care are also divided. General surgery, orthopedic surgery, neurosurgery, otolaryngology, and other services will have children assigned to them. The children may be on the pediatric ward or may be on the home ward of the special service. A pediatrician may or may not participate in the care of the patient, depending on

the child's physical location and on whether consultation is requested. For instance the child may enter via the out-patient surgery clinic, or the emergency room, go almost directly to surgery and not be seen by a pediatrician until after surgery. This of course greatly reduces the instructional value of that particular patient, not to speak of the benefits to the patient that might derive from pediatric consultation.

In another instance, a child may be on the pediatric service but may require a surgical diagnostic procedure, such as a pneumoencephalogram. To the present time there has been insistence that the child be transferred to the surgical service before the procedure is done.

Children with contagious diseases, such as diphtheria, are admitted to the contagious disease ward, and automatically are under the administrative control of the medical department, even though cared for by the pediatricians.

These situation, as listed, make for divided responsibility. In the case of contagious diseases it would seem obvious that the pediatric department should have full administrative control as well as responsibility for the care of all pediatric patients. The pediatric surgical problems present a somewhat different situation. I am sure much of the surgical thinking has been influenced by Robert Gross, the chief pediatric surgeon at Boston Children's Hospital. He contends that the children with surgical problems should be under the full control of the pediatric surgeon, with pediatricians used as consultant. Dr. Gross may be right in the situation he is in, although not all pediatricians would even agree with that. The situation here in Korea cannot be compared to Boston however. There are no trained pediatric surgeons here. To my mind the child's welfare would be much better placed in the hands of the pediatrician, who deals

with all kinds of pediatric problems daily. The pediatrician could, and I think the record shows that he would, request consultation as needed. In any instance, all concerned with the care of children here should constantly keep in mind that this is a teaching institution and that everybody possible should have the opportunity to learn from every patient.

12. The Patient's Chart.

The patient's hospital chart is, or should be, a compilation and summation of everything which is pertinent to the care of the patient. It should also be complete and comprehensive so that it can be used as a reference document for investigation and research. It is hard to see how good patient care can be given and good investigative work can be done without good patient charts.

Although I have noted the situation improving, there are still chart deficiencies to be corrected. Often the histories are too short. The physical examination may be lacking in some vital element, such as eye ground evaluation. An initial progress note, with diagnostic impressions, is often omitted. The progress notes may contain many irrelevant things and fail to mention the important things. The doctors' orders are often imprecise. Such orders as "5% glucose prn" have been written. Drugs may be ordered without exact dosage or time of administration listed. Orders for diet and for the patients permitted activity may be lacking.

The responsibility for good charts must eventually be that of the staff man. He should insist that students, interns and residents meet proper standards.

Recommendations

Most of the recommendations I would make are implicit in the criticisms I have made. However for the sake of clarification I will list things which, as I see it, need to be done. These can be divided into the various categories of National, SNU Medical School and Pediatric Department.

National:

1. The license to practice medicine should be granted only to graduates of recognized schools of medicine.
2. Strict control of the sale of drugs should be instituted. Most drugs should be sold only on a doctor's prescription.
3. Many more free beds should be provided for the public teaching hospitals.
4. The doctors must strengthen their medical societies and use them as a means to improve medical practices and ethics.
5. The government and the medical societies should act to educate the people to the advantages of scientific medicine, of immunizations, of sanitation practices, and to the worth of autopsies.
6. Sanitaria must be provided if tuberculosis is ever to be brought under control.

The SNU Medical School:

1. The staff must realize their collective responsibility for improving the medical school.

2. The out-patient clinic must be organized for teaching.
3. Medical procedures not fully justified by scientific evidence or not of an experimental nature must be avoided as contributing to the abasement of high medical standards.
4. The obtaining of autopsies must be encouraged.
5. All surgical specimens must be submitted to the pathologist. The tissue committee should be very active.
6. More frequent consultation between services should be encouraged.
7. The clinical laboratory must be improved. An adviser in laboratory technology should be obtained.
8. The post graduate studies leading to the specialty certification or the "Paksa" degree must be upgraded and made more demanding. In the clinical fields, clinical skills and knowledge must be stressed.
9. Medical students should be certified for admission to the medical school by the medical school and not the liberal arts college. A certain standard of performance must be demanded of them, with failure from the school the consequence of poor performance.
10. The attitude of the hospital staff towards the patient should include a large amount of compassion, now apparently absent to some degree.
11. The hospital infections control committee should be more active.
12. Students, interns, residents and staff of other medical schools and hospitals

should be considered for admission and appointment here to improve the medical atmosphere by the introduction of "new blood".

13. Junior faculty members should have more voice than at present in the management of medical school affairs.

The Pediatric Department:

1. Provisions should be made for the admission to the pediatric full time staff of highly qualified persons as they become available.
2. There should be insistence that all children be hospitalized on the pediatric ward, and that adults not be hospitalized on this ward.
3. The number of the resident staff should be maintained at about ten. The category of clinical "graduate students" should be eliminated.
4. Affiliation with other pediatric facilities in the city should be maintained and expanded.
5. The pediatrician should assume interest and responsibility for the welfare of orphans and other children throughout the city and country.
6. The medical student on clerkship must be encouraged to greater degrees of independence in the acquisition of medical knowledge.
7. Pediatric national board examination should be developed by the pediatric societies, free of governmental influences.
8. The research activities of the pediatric department must be strengthened as opportunities are presented to correlate the clinical ward and the

laboratory in meaningful investigation efforts.

9. Ideally, all pediatric patients should be under the administrative control of the pediatric department, with other services acting as consultants. All new pediatric out-patients should be seen in the pediatric clinic first.

Personal Activities

My activities during the past year are listed for the sake of completeness and to give an indication of how the pediatric adviser has functioned.

Pediatric Department Activities

Ward rounds were made regularly with the staff, residents and interns. Teaching rounds were made with the students weekly. A seminar on various aspects of pediatrics was given once weekly. The out-patient clinic was attended twice weekly. The scheduled activities of the pediatric department such as grand rounds, and X-Ray conferences were attended quite regularly. Lectures to the junior and senior students were given on various subjects. Meetings were held with pediatric department members almost daily.

A series of talks on jaundice in the newborn and on endocrinology was given to the Seoul Pediatric Society.

A talk was given at the Korean Pediatric Society meeting in Taegue.

Weekly rounds were made irregularly at one orphanage and the Children's Charity Hospital.

A series of visits was paid to several orphanages in the city of Seoul to

assess their standards of care and medical requirements.

Medical School Activities

Weekly meeting with the Dean of the medical school and with the Superintendent of the hospital were attended. Some of the faculty and department head meetings were attended.

Talks were given on 3 occasions as part of the inter-departmental lecture series. A talk on hospital infections was given. A series of seminar type discussions was held with the graduate nurse staff.

Tours through the hospital and medical school were conducted for visitors and other interested people on many occasions. Corrections of English translation or summaries of papers written by various members of the staff were done regularly.

Other Professional Activities

Visits were made to leprosariums and to other medical schools and hospitals in Seoul. A ten day tour to visit medical schools, hospitals and historic sites was made to the southern part of the country with Dean Myung, Dr. Kwon and Dr. Gault.

I acted as the American embassy medical representative in certifying orphans for immigration to the United States through the Holt Adoption Agency.

A talk on public health matters was given to primary school teachers at their annual meeting in Inchon in August.

A talk was given at the Korean Medical Association meeting in Pusan in October 1959. Weekly meetings of the Health and Sanitation division of USOM were attended. Visits to public health centers with health and sanitation personnel were made on two occasions and a visit to a "model village" on another occasion.

A planning meeting of the National Institute of Public Health Training was attended.

Appendix

Included in the appendix are items which I think help to clarify the organization and functioning of the medical school and the pediatric department.

1. Schedule of clinical conferences of Seoul National University Hospital.
2. Schedule of the pediatric department activities.
3. Lecture schedule for pediatrics.
4. Research projects of the medical school.
5. Research projects of the pediatric department.
6. Six papers presented by members of the pediatric department at a national pediatric society meeting.
7. Compilation of numbers and types of patients seen on the pediatric service.

Schedule of the Pediatric Department Activities.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:00						
8:50	Specimen Collection	"	"	"	"	"
9:00	X-Ray	"	"	"	"	"
10:00	////////////////////					
	Teaching Round Dr. C. Y. Hong	Dr. K. C. Rie	Dr. T. K. Lee	Dr. H. R. Moon	Dr. Berglund	Dr. U. H. Cho Dr. S. H. Kim
11:00	Regular Staff Round	"	"	"	"	"
12:00	////////////////////					
1:00	Students' Conference Dr. Y. S. Kim Dr. S. H. Kim	////////////////////	Joint Conference	Students' Conference Dr. J. K. Yoon Dr. K. W. Ahn	C. P. C.	Seminar
2:00	Seminar Dr. Berglund	Grand Round	Well baby Clinic	X-Ray	Well baby Clinic	
3:00	////////////////////	////////////////////		Conference		
4:00	////////////////////	Lecture (Junior) Dr. K. W. Ahn Dr. Y. K. Lee		////////////////////		
5:00	Journal Review	////////////////////	////////////////////	Lecture (Senior) Dr. J. K. Yoon Dr. B. S. Min	////////////////////	

O. P. D.	Dr. Berglund Dr. H. R. Moon	Dr. T. K. Lee Dr. C. Y. Hong	Dr. H. R. Moon Dr. U. H. Cho Dr. S. H. Kim	Dr. Berglund Dr. C. Y. Hong	Dr. T. K. Lee Dr. U. H. Cho	Dr. C. Y. Hong Dr. H. R. Moon
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SCHEDULE OF CLINICAL CONFERENCE June, 1960

Seoul National University Hospital

<u>day</u>	E.N.T. Conference	13.00-14.00	Department of Otolaryngology
	Neuropsychiatric Conference	13.00-14.00	Department of Psychiatry
	Tumor Conference	13.00-14.00	A-Auditorium
	Hematology Conference	13.00-14.00	Department of Internal Med.
	OB & Gyn Grand Round	13.00-14.00	Department of OB & Gyn
	Urological Conference	14.00-15.00	Department of Urology
	G-I Seminar	14.00-15.00	Department of Internal Med.
	Pediatric Seminar	14.00-15.00	Department of Pediatrics
	Dermatology Seminar	15.00-16.00	Department of Dermatology
<u>sday</u>	Pediatric Grand Round	13.00-14.30	Department of Pediatrics
	X-Ray Medical Conference	13.00-14.00	A-Auditorium
	OB & Gyn Seminar	13.00-15.00	Department of OB & Gyn
	Surgical Seminar	13.00-14.00	B-Auditorium
	Infectious Disease Seminar	14.00-15.00	Department of Internal Med.
	Heart Conference	14.00-16.00	Department of Surgery
<u>day</u>	Joint Conference on "Infection"	9.00-10.00	B-Auditorium
	Seminar on Metabolism	13.00-14.00	Department of Internal Med.
	Interdepartmental Lecture	13.00-14.00	Main Auditorium
	Liver Biopsy Conference	14.00-15.00	Only in the 4th week
	E.C.G. Seminar	14.00-15.00	Department of Internal Med.
<u>day</u>	Ophthalmological Conference	9.00-10.00	Department of Ophthalmology
	X-Ray Pediatric Conference	14.00-15.00	X-Ray Reading Room
	X-Ray Urological Conference	8.30-9.30	Department of Urology
	E.N.T. Seminar	14.00-16.00	Department of Otolaryngology
	OB & Gyn Pathological Conference	14.00-15.00	Department of OB & Gyn
	Medical Grand Round	14.00-16.00	A-Auditorium
	Dermatology Seminar	15.00-16.00	Department of Dermatology
<u>day</u>	Surgical Pathological Conference	9.00-10.00	Department of Pediatrics
	Urological Seminar	13.00-14.00	Department of Urology
	C.P.C.	13.00-14.00	A-Auditorium
	Prenatal Care	13.00-15.00	OB & Gyn. O.P.D.
	Chest Conference	14.00-15.00	X-Ray Reading Room
	Pediatric Journal Review	16.00-17.00	Department of Pediatrics
	Neurosurgical X-Ray Conference	16.00-17.00	A-Auditorium (3th Friday)
<u>day</u>	Ophthalmological Seminar(Ocular Muscle)	9.00-10.00	Department of Ophthalmology
	X-Ray Surgical Conference	9.00-10.00	A-Auditorium
	Neuropsychiatric Conference	12.00-13.00	Department of Psychiatry
	Dental Clinical Conference	13.00-14.00	Department of Odontology
	Medical Surgical Joint Conference	13.00-14.00	A-Auditorium
	Resp. Dis. Seminar	14.00-15.00	Department of Internal Med.

LECTURE SCHEDULE IN PEDIATRICS (1960)

CONTENTS	HOUR	TOTAL HOUR	THE PROFESSOR
1. <u>Introduction, Pediatric Physical Examination</u>	2	3	Lee Kook Choo
1) Characteristics of Pediatrics, Division of Infancy and Children.			
2) History taking, physical examination in Pediatrics (Preparatory Knowledge for out-patient clinic)			
3) Recommendation of Pediatric References			
2. <u>Growth and Development</u>	1		Lee Kook Choo
1) Physical growth and development (Weight, Height ... Circumference of the head and the chest, Proportion (ratio) of body, the brain, various internal organs)			
2) Neuromotor and Mental development			
3. <u>Nutrition and Nutritional Disturbances</u>		8	
1) Nutritional requirement Energy quotient Nem system	1		Lee Kun Soo
2) Feeding of infants Breast feeding Artificial feeding, Chemistry of cow's milk modification of cow's milk, mixed feeding, Weaning	1		Lee Kun Soo
3) Nutritional disorders Acute nutritional disturbance (diarrheal disorders) Chronic nutritional disturbances (malnutrition) Severe malnutrition (atrophy) Mehlnaehrschaden Milchnaehrschaden Kwashiorkor Obesity	3		Chang, Jai Sum

4) Vitamin deficiency V-A deficiency V-B complex deficiency Scurvy, Richets, V-K deficiency	3		Chang, Jai Sum
4. <u>General Treatment and Fluid Therapy</u>	3	3	Dr. Berglund and Hong, Chang Yee
1) Dosage of Drugs			
2) Fluid therapy			
5. <u>Newborn Infant, Diseases of the Newborn Infant and Prematurity</u>	4	4	Moon, Heung Ro
1) Physiology of the Newborn and Premature Infant			
2) Care of the Newborn and premature infant			
3) Disease of the Newborn infant			
4) Inborn error			
6. <u>Infectious Diseases</u>		10	
1) Pediatric immunology and immunization	1		Lee, Tong Kee
2) Acute infectious disease			Lee, Tong Kee
a) Viral infections	3		
Measles, German measles, exanthem subitum, chickenpox Small pox, mumps. Epidemic influenza, Rabies, Poliomyelitis, Encephalitis			
b) Bacterial infections	3		
Scarlet fever, Diphtheria, pertussis, meningococcal inf. Tetanus, Bacillary dysntery Typhoid fever, Salmonella inf.			
3) Chronic infectious diseases	3		Kang, Won Za
Tuberculosis Syphilis Parasites			

7. <u>Digestive System</u>		3	
1) Stomatitis, Congenital anomalies (T-E fistula etc. Pyloric stenosis) Malrotation, Intestinal obstruction, Megacolon, Intussusception, celiac syndrome, ascites, peritonitis, Appendicitis	2		Dr. Berglund and Hong, Chang Yee
2) Liver diseases Tests of liver function gallbladder, bile ducts Infectious hepatitis etc.	1		Hong, Chang Yee
8. <u>Respiratory System</u>	2	2	Cho, Un Hai
1) Acute nasopharyngitis, acute Pharyngitis, Retropharyngeal abscess Congenital laryngeal malformation, Stridor, acute spasmodic laryngitis acute non-diphtheric infections Bronchitis, Bronchiectasis			
2) Pneumonia, Pleurisy Emphysema, Atelectasis, Emphysema Pneumothorax			
9. <u>Cardiovascular System</u>	4	4	Hong, Chang Yee
1) Congenital heart disease			
2) Acquired heart disease			
3) Rheumatic fever			
10. <u>Disease of the Blood</u>		4	Dr. Iverslund and Hong Chang Yee
1) Anemias			
2) Leukemia, agranulocytosis			
3) Purpuras (anaphylactoid purpura Idiopathic thrombocytopenic purpura, etc.)			
4) Hemophilis			
5) Hematopoietic organ:			

11. <u>Genito-urinary System</u>	2	2	Cho, Un Hai
1) Nephritis and Nephrosis Phylonephritis, pyelitis			
2) Cystitis, Enuresis			
3) Congenital malformation (Cystic kidney, extrophy of bladder etc.)			
12. <u>Nervous System</u>	3	3	Dr. Berglund and Moon, Heung Ro
1) Convulsive disorders			
2) Mental retardation, Developmental disorders of the C. N. S. Vascular disorders of the C. N. S.			
3) Cerebral palsy			
4) Neuropsychiatric disorder, others			
13. <u>Endocrine System</u>	4	4	Dr. Berglund and Moon, Heung Ro
1) Pituitary Dwarfism and gigantism Hypothalamus and pituitary gland.			
2) Diabetes insipidus			
3) Precocious puberty			
4) Hypothyroidism			
5) Hyperparathyroidism			
6) Acute adrenal insufficiency, Hyper- adrenescosticism			
7) Adreno-genital syndrome, Pheochromocytoma			
14. <u>Allergic Disease</u>	3	3	Lee, Tong Kee
1) General discussion			
2) Eczema			
3) Asthma			

4) Serum sickness

5) Urticaria

6) Allergic rhinitis

Gastrointestinal allergy

15. New Growths in Children

2

2

Hong Chang Yee

16. Miscellaneous

3

3

All Staff

Total hours . . . 53

Recent and Current Research of the Medical School
Seoul National University

Department of Internal Medicine

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
. Clinical studies on enteric pathogens (particularly, shigella and salmonella), and intestinal protozoa.	Completed SNU J. Med. Pharm. Series 9: 1, 1959	Chun, Chong-Hwee
. Three cases of murine typhus confirmed in Korea	" Korean J. of Int. Med. 2: 429, 1959	"
. Cold agglutinins among Koreans.	" " 2: 205, 1959	"
. Some aspects of clinical observation on intestinal amebiasis	" " 2: 115, 1959	"
. The diagnostic value of hemagglutination inhibition test on the Jap. B. Encephalitis	" Korean Med. J. 4: 41, 1959.	"
. Activity of GOT in CSF of the healthy and infections case on CNS.	" Directed by Dr. Chun Korean J. of Int. Med. 2: 389, 1959	Lee C.M. and Park Y.K.
. The significance of anti-streptolysin O titer in rheumatic heart disease.	" " " 2: 377, 1959	Chae T.S.
. The trombiculid mites of Korea	" " Korean J. of Zoology 2: 17, 1959	Chang H.Y.
. Clinico-bacteriological investigation on the various strains of organisms isolated from specimen.	" " Korean J. of Int. Med. 2: 293, 1959	Kim Y.B. and Lee C.M.
. Study of the antibacterial actions on the paper disk method in case of antibiotic combination	" " " 2: 221, 1959	Lee C.M.
. The distribution of secretor, nonsecretor and Levis blood group in Koreans.	" " " 2: 311, 1959	Won C.D.

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
29. Studies on the gastric secretion	in progress	Eung Jin Kim
30. Study on the PBI ¹³¹ , glucose, creatinine cholesterol and its ester levels in blood plasma before and after radioiodine treatment in hyperthyroidism.		Zin Soon Lee
31. Histochemical studies on cirrhotic liver and myocardiac infarction of experimental animal (rabbit).		"
32. Concentration of serum iron after administration of cobalt chloride in the patients of pulmonary tuberculosis with anemia.	Completed	In Mok Heu
33. Incidence and etiology of anemia in Korea	in progress	"
34. Studies of bone marrow transplantation	"	"
35. Studies on chemotherapy of tuberculosis	Completed	Kim Kyung Sik
36. Drug resistance in pulmonary tuberculosis	"	"
37. Influence of isoniazid on memory	"	"
38. On chemotherapy of pulmonary tuberculosis	in progress	"
39. Determination of free isoniazid in blood and urine	"	"
40. Transplantation of bone marrow	"	"

Department of Surgery

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. The urinary assays of 17-OH-Corticostroid on patients with malignant tumors	Completed Directed by Byong Ho Chin	Don Pae Keun
2. Urinary 17-OH-Corticoid and 17-Ketsteroid excretion in 3-Methylcholanthrem administered cancer patients.	"	Se Il Suk
3. Influence of Cholesterol-methylether on adrenocortical function.	"	Yong Song Dong

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
4. A study of antimetabolic action of Cholesterol-methylether.	Completed Directed by Byong Ho Chin	Hoon Hwang
5. Chemical character of cancer inhibitory factor from liver.	"	Chang Song Kim
6. Clinical report of cancer inhibitory action of 3-methylcholanthrene	"	Pil Hyun Chun
7. The cancer inhibitory action of nitrogen mustard treated with serum.	"	Yung Sung Whang
8. Study on pump oxygenator: Long term survival of the animals which have undergone total body perfusion and right ventriculostomy.	" Korean Medicine 3: 59, 1960	Young Kyoon Lee
9. Intravital staining of the atrioventricular bundle with iodine compounds during cardiopulmonary bypass.	" Circulation research 7: 753, 1959 co-author, (junior author)	"
0. Struma	in progress	Park Kil Soo
1. Growth inhibiting substances in normal organs and tissues.		Chang Song Kim
2. Acquired tolerance of skin homografts in rats injected postnatally with homologous whole blood.	Completed	Kim Ja Hoon
3. Induction of acquired tolerance of homologous skin graft in dogs.	"	"
4. The influence of total body irradiation of x-ray on the survival of homologous skin grafts in rats.	"	"
5. The effect of Freund's Adjuvant on vascularization.	in progress	"
6. Regeneration of bone on bony defect	"	"

Department of Neurosurgery

1. Diseases of the pituitary gland	1959 Korean Medicine 1959 2:49-53	Bo Sung Shim
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<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
2. Treatment of cerebral vascular diseases	1959 Korean Medicine 1959 2:79-84	Bo Sung Shim
3. Recent trends in neurosurgery	" New. Med. J. 1959 2:1204-1211	"
4. A study of the cerebral hemispherectomy	" Reported at 11th, Korean Surgery Assoc. in 1959-10-11	"
5. Pituitary tumors	" " "	"
6. Experiences with spinal cord tumors	" " "	"
7. Statistical observations of the lumbar disc lesions	" " "	"
8. A case of spinal lithiasis	" Reported at 18th Korean Surg. Conf. 1959-2-21	"
9. Posterior fossa tumors	" Reported at 21th Korean Surg. Conf. 1959-8-29	"
10. Tuberculomata of the central nervous system	1960 J. K. Surg. Soc. 1960, 2:69-74	"
11. Secondary degeneration of the pyramidal tract following cerebral hemispherectomy	" J. of S.N.U. Med. Sch. 1960	"
12. Cervical rib with scalenus anticus syndrome	" "	"
13. Histo pathological observation of the cerebral paragonimiasis	" Will be reported at 12th K. Sug. Assoc. Meeting	"
14. Herniated cervical discs	" " "	"

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
5. Extradural tuberculomas of the spinal cord (5 cases)	1960 Will be reported at 12th K. Sug. Assoc. Meeting	Bo Sung Shim
6. Lumbar disc lesions associated with spondylitis tuberculosa	"	"

Department of Obstetrics and Gynecology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. On the blood findings of mother and her newborn infant immediately after the birth	Completed, M. S. Directed by Kim Suck Whan	Shin Hyun Tak
2. On the ossification center of the wrist & ankle joint of Korean newborn infants.	" "	Han Tai Ho
3. On the interspinous diameter and the transverse diameter of the pelvic inlet of Korean women by roentgen pelvimetry	" "	Lee Kyu Ha
4. On the differences between the maternal and fetal serum protein fractions by paper-electrophoresis	" "	Lee Jai Hyun
5. On the changes of serum proteins after the Blood donation among the blood donors	" "	Park Sung Kee
6. The difference in anti-A & anti-B agglutinin titer between mother and newborn infant	" "	Kim Eun Bai
7. Cervical mucus test	" "	Park Kyu Hoon
8. Observation on genital tuberculosis in Korean females	" "	Lee Eue Sun
9. Factors which might influence the kymographic curve, and changes in pulse rate and blood pressure in women following carbon dioxide gas tubal insufflation	" "	Doe Sang Tak
10. The erythrocyte sedimentation rate and hematocrit during pregnancy and parturition, and of the newborn infants	" "	Chang Yun Suck

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
11. The water content of the maternal and fetal blood	Completed, Directed by	M. S. Kim Suck Whan
12. A study on liver function tests in the patients with uterine carcinoma	" "	Park Jae Hwee
13. Anti-A and Anti-B agglutinin titer in the contents of the ovarian cysts	in progress, "	Ph. D. Kim Tai Suck
14. On the differences between the maternal and fetal haemoglobin by paperelectrophoresis	Complete "	Lee Jai Hyun
15. The amount of blood sugar in mother and fetus	in progress "	Kim Yong Bok
16. Systematic measurement in uterine cancer	" "	Ko Duck Yung
17. Earth worm test	" "	M. S. lee Nam Soo
18. Plasma antidiuretic activity in toxemias of pregnancy	" "	Lee Yong Sup
19. The influence of human serum in pregnant & non-pregnant rabbit	" "	Lim Hong Bon
20. Preoperative and postoperative excretion of 17-ketosteroid in uterine cancer	" "	Park Yung Chan
21. The influence of Polygonum sachalinense fr. schm. on cyclic changes of female mouse.	" "	Lim Yung Sun
22. The amount of calcium and chloride in maternal and fetal serum	" "	Shin Ok Ha Kim Sung Sim
23. The amount of calcium and chloride in the serum of pregnant women in 1st, 2nd and 3rd trimester	" "	" "
24. The amount of calcium and chloride in the serum of cervical cancer in hypogastric artery, hypogastric vein and external iliac vein	" "	" "
25. <u>Blood coagulation</u> features of abruptio placentae and hypofibrinogenemia	Completed	Shin Myon Woo

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
6. Blood clotting studies in parturient women and the newborn	Completed	Shin Myon Woo
7. Measurement of iron contents in the serum of the mother and newborn	"	"
8. Measurement of copper contents in the serum of the mother and newborn	"	"
9. Experimental study on preventing post-operative adhesion	in progress	"
10. Histopathological studies on chorionepithelioma	Completed	Bai Byung Choo
11. Chorionepithelioma following artificial abortion	"	"
12. The distribution of RH sub-groups in Koreans	"	Shin Han Soo
13. A study on the crystallization of the serum, plasma and egg albumin as well as the cervical mucus	"	"

Department of Urology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
- Studies on Renal Function Studies on normal value of the renal function of Koreans -		Kim Heng Suck
1. Phenolsulphonephthalein excretion test	Completed	"
2. Urea clearance	"	"
3. Creatinine chromogen clearance	"	"
4. Inulin clearance (G.F.R.)	in progress	"
5. PAH clearance (E.R.P.F., E.R.B.F.)	"	"
6. Diodrast clearance (E.R.P.F., E.R.B.F.)	"	"
7. Maximum Tubular Secretary capacity	"	"
8. Phenol red clearance \bar{c} imphenol red	"	"

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
9. Creatinine clearance (by using Van Pilsum method)	in progress	Kim Heng Suck
- Experimental studies on surgery of the Ureter -		Kun Weon Choo
0. Mobilization and isolation of the ureter	Completed in 1959	"
1. An experimental study on reconstruction of the ureters by a tube made from pedicled peritoneal flaps	"	"
2. Homologous ureteral transplantation	" The Korean J. of Urology, 1: 1, 1960	"
3. Experimental studies on the ureteral transplantation using homologous grafts preserved in alcohol.	in progress	"

Department of Otolaryngology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Experimental studies on the corrosive esophagites due to lye. Especially the pathohistological observations of several organs.		Kim, Hong Kee
2. Clinical studies on the corrosive esophagitis and esophageal stenosis due to lye.		"
3. Experimental studies on the corrosive esophagitis due to lye. Especially the functional and biochemical observations of several organs.		"
4. Biometrometic study on mouths of Koreans		Yung Kil, Lee
5. Somatometric study on the external nose of living Koreans.	1959 Original studies	Man Kee Paik
6. Somatoscopic study on the external nose of living Koreans.	" "	"
7. Distance from nostril to pharyngeal mouth of eustachian tube.	" "	"
8. Mucous elevation of the anterior nasal floor.	" "	"

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Stammering observed in a family	1959, Case reports	Man Kee Paik
2. A case of ear cancer in a 13 year old boy.	" "	"
3. Closure of tympanic perforation	" "	"
4. Profile of the Korean face.	1960, Original study	"
5. Two case reports of foreign bodies remaining in the bronchus for 3 years	" Case report	"
6. Recent trends in tympanoplasty	" Review	"
7. Certain problems in occupational deafness	" "	"

Department of Ophthalmology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Treatment of cataract	Completed	Kong In Ho
2. Use of alpha-chymotrypsin in cataract of the young.	"	"
3. Visual physiology in strabismus.	"	"
4. Findings in the retinal vessels in hypertensive patients.	"	Youn Won Sik
5. Changes in the retinal arterial pressure by the administration of Raudixin.	"	"
6. Ocular findings in hyperthyroidism before and after treatment by radio-iodine.	in progress	"

Department of Radiology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Study on radiation cataracta.	in progress	Choo Dong Woon & Han, Man Chung
2. Study on retrocardioangiography	"	" Lee, Kyo Rak

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
3. The statistical study on Korean gastro-intestinal diseases	in progress	Choo Dong Woon & Sihn Han Soo
4. The study of radiation reaction on tumor implanted animal.	"	"
5. The statistical study on patients receiving radiation therapy	"	Chung, Tae Ik

Department of Physiology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Reaction to a stressful stimulus in rats following hippocampal ablation	Completed in 1959	Kim Chul
2. Reaction to chronic stress in rats following hippocampal ablation.	in progress	"
3. Audiogenic seizure of hippocampus-ablated rats.	"	"
4. Migration distances of human serum protein teractions in Agar gel E.P. patterns.		Rhie Chong Hwan
5. Metabolism of C ¹⁴ -glucose by the isolated dog heart.	Published	Sang Don Rhee
6. Determination of glycogen turnover rate by C ¹⁴ -glucose dilution method.	To be published	"
7. Metabolism of C ¹⁴ -glucose in the alloxan diabetic dog.	Under investigation	"
8. Analysis of 3 compartment system of the CO ₂ pool by single injection of the C ¹⁴ -labeled bicarbonate.	"	"
9. Kinetics of oxidative metabolism of C ¹⁴ -glucose by liver slices of mice.	"	"
10. Blood volume of chronic post-hemorrhagic anemic men	Published S.N.U. J., Med. & Pharm. Ser. 8:158, 1959	Nam Kee Yong Kim Wan Tai Chung Young Soo Choi Duk Kyong
1. Metabolism of C ¹⁴ -glucose in the isolated dog heart.	" New Medicine (in Korean) 3:299, 1960	" Rhee Sang Dong Park Chae Il

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
2. Metabolism of C ¹⁴ -glucose in normal dog.	To be published in press in Seoul J. Med.	Nam Kee Yong Rhee Sang Don Park Chae Il
3. Hemodynamic effect of chronic post-hemorrhagic anemic blood transfused into normal men.	"	" Park Gil Soo
4. Cobalt chloride induced polycythaemia in rat.	"	" Choi Duk Kyung
5. Mathematical theory of the determination of the life span of red blood cells by isotopic method	"	" Chang Tai Yup Chang Soon Kyun
6. Shortened survival of red blood cell in chronic post-hemorrhagic anemic men studied with Cr ⁵¹ .	Under investigation	" Kim Woo Kyum
7. No evidence of hemopoietin in chronic post-hemorrhagic anemic human blood studied with Fe ⁵⁹ uptake by red blood cell.	"	"
8. Renal I ¹³¹ clearance in normal and thyroid diseases.	"	" Kim Woo Kyum
9. Survival time of red blood cell in human lung distomiasis.	"	" Lee Chae Ryong

Department of Parasitology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Chemotherapy of helminthiases (Korean text)	Completed Jong-Hap Eu-Hak, 4(2)51-8	B.S.Seo
2. A survey of malaria among narcotic addicts in Seoul (Korean text with English summary)	" S.N.U. J. Vol. 8 July 1959	" & J.H.Rim
3. A new large-tailed echinostome cercaria from Amnicola limosa (Say) in the Douglas Lake region of Michigan.	" Transact. of the Am. Micro. Soc. Vol. LXXIII(2) 215-9 April 1959	" H.F.Lee
4. The invitro excystation of metacercariae of clonorchis sinensis. (English text with Korean summary)	" Choi-Shin Eu-Hak, 2(12) 5-73 Dec. 1959	"

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
5. Relapse of malaria and its treatment. (Korean text)	Completed Han-Kook Eu-Hak 2(12) 25-7 Dec. 1959	B.S.Seo
6. On the protozoa and helminths of medical importance in Korea. (Korean text)	" J. of Korean M. A. 2(2) 27-32 Feb. 1960	"
7. Helminths and Allergy (Korean Texts)	" Han-Kook Eu-Hak, 3(7) 15-20, Sept. 1960	"
8. Host-parasite relationship of clonorchis sinensis in the unnatural host.	in progress	"

Department of Preventive Medicine

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Study on blood values in Koreans	Completed S.N.U. J. Vol.8 July, 1959	E Hyuck Kwon
2. Geographical distribution of thyroid diseases.	in progress	"

Department of Microbiology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Effect of Jap. B. Encephalitis virus on virus induced rabbit fibroma.	Completed 1959	Chin Yung Park
2. Attempt to isolate Jap. B. Encephalitis virus from Korean mosquitoes.	in progress 1959-1960	"
3. Preparation of Jap. B. Encephalitis virus vaccine in porcine kidney cell cultures in vitro.	" "	"
4. Study on anamnestic antibody response to Jap. B. Encephalitis virus in Korean adults.	" "	"

Department of Pharmacology

<u>TITLE</u>	<u>STATUS</u>	<u>AUTHOR</u>
1. Detoxification and mode of detoxification of glycyrrhizic acid in licorice.	1960-1961	Jin Sup Oh
2. Urushiol (Pentadecenyl Catechol)	"	Sa Ack Hong
a. Isolation.		
b. Separation and purify the various principles, and confirm its chemical nature, especially double bonds.		
c. General action and anthelmintic action.		
d. Carcinostatic effects.		
3. Study about the pentadecenyl compounds from Ginkgo Biloba.	"	Jung Kyoo Lim
a. Isolation and purification of Bilobol, Ginkgoic acid and Ginkgol from Ginkgo Biloba.		
b. Structure activity relationship study between those compounds.		
Particularly:		
1. Local stimulating and sensitization effects.		
2. Allergenic nature and hypersensitivity.		
3. Cytotoxic effects.		
4. Anthelmintic effects.		
5. Other general effects.		

Research Works
of
Department of Pediatrics

Subject	Name	Director	Remark
1) On the influences of the various organs of the tuberculous animal upon the development of chemotherapy resistant strains.	W.Z.Kang	K.C.Rie	Ph.D. degree
2) On the influence of steroid hormone upon the E.C.G. and histological changes of the heart caused by diphtheric toxin.	H.R.Moon	K.C.Rie	Ph.D. degree
3) On the ADH activity of the serum of the hypertensive patient.	J.S.Chang	K.C.Rie	Ph.D. degree
4) On the ADH activity of the serum of the allergic animals.	S.H.Kim	K.C.Rie	Ph.D. degree
5) On the influence of various hormones upon the vasopressin activity of the dehydrated and undernourished rabbit' serum.	K.W.Ahn	K.C.Rie	B.S. degree
6) On the ADH activity of the serum of the patient with kidney disease.	C.K.Yun	K.C.Rie	B.S. degree
7) Statistical studies on the size of the anterior fontanel	H.R.Moon	K.C.Rie	B.S. degree
8) On the immunity of the normal babies and children against Japanese B Type Encephalitis.	H.S.Kei Y.K.Lee	K.C.Rie	B.S. degree
9) On the effect of the Japanese B Type encephalitis vaccine.	H.S.Kei Y.K.Lee	K.C.Rie	B.S. degree
10) Statistical studies on the growth of the infants in Seoul area.	All Residents	K.C.Rie T.K.Lee	

Subject	Name	Director	Remark
11) On the ADH activity and 17-HOCS contents of the serum and urine of the dehydrated and undernourished animals.	K.C.Rie U.H.Cho		
12) Serum protein electrophoretic pattern changes in infants.	S.H.Kim	T.K.Lee	B.S. degree
13) Glycoprotein content in cerebrospinal fluid of poliomyelitis patient and tuberculous meningitis patients.	S.H.Kim	T.K.Lee	B.S. degree
14) Epidemic diarrhea in nursery.	S.H.Kim H.S.Kei	T.K.Lee	B.S. degree
15) Schick test survey in children in Seoul.	K.Kwack	T.K.Lee	B.S. degree
16) Statistical studies on the motor activity of the infants	C.K.Cheung	J.S.Chang	B.S. degree
17) Studies on the anemias in Korean infants and children.	C.Y.Hong		
18) Clinical and statistical studies on leukemia in Korean children.	C.Y.Hong		
19) Studies on the congenital heart diseases (cardiac catheterization studies).	C.Y.Hong		
20) On the serum CO ₂ combining power and correction of acidosis in the severe diarrheal infants.	U.H.Cho		
21) On the influences of the steroid therapy upon the sugar and chloride contents of the serum and spinal fluid of the tuberculous meningitis patient.	U.H.Cho		
22) Studies on the total serum protein contents.	U.H.Cho		

A CASE OF CHRONIC CONSTRICTIVE PERICARDITIS

Chang Yee Hong
Sang Hyup Kim

Three years ago the author reported a case of chronic constrictive pericarditis at the Pediatric Society Meeting. We are presenting another case. A case of chronic constrictive pericarditis recently encountered in 11 year old boy illustrates not only some clinical features of the disease and pitfalls in diagnosis but also the value of certain laboratory procedures such as cardiac catheterization, electrocardiography, hemodynamic studies, pre- and post-operatively and effects of surgical correction.

Chronic constrictive pericarditis is diagnosed far less frequently in children than in adults and is particularly rare before the age of 10 years. Only 8 cases of chronic constrictive pericarditis in children (under 15 years old) were encountered at the Mayo Clinic in the past 25 years (1930-1955).

Report of a case

An 11 year old boy was admitted to Seoul National University Hospital on March 23, 1959 with complaints of abdominal distension, chest pain and emaciation, known to have been present for 6 months. Seven months prior to admission, patient caught cold. Since then abdominal distension, chest pain and emaciation developed insidiously. At the beginning of abdominal distension, edema appeared for a while.

The family history and the past history were non contributory. Physical examination on admission revealed a poorly nourished, pale and cyanotic 11 year old boy with edema and dyspnea. The heart sound was weak. No murmur was audible. The size of heart was within normal limits. The breathing

sound was weak and there was dullness over the lower lung fields. The neck veins were dilated markedly and liver was enlarged (5 finger breadth below the right costal margin) and ascites was found. The blood pressure was 80/50. Venous pressure was 220mm H₂O.

Laboratory findings are as follows:

Tuberculin test (2000X): positive

Complete blood count: within normal limits

Urinalysis: urobilinogen (+)

Stool: Pinworm (+)

Liver function test:

A/G ratio: 2.59/3.96

otherwise within normal limits

Pleural effusion: exudate

Abdominal fluid: exudate

Chest X-Ray revealed moderate pleural effusion and vague contour of the heart shadow. No calcification and no cardiac pulsation were observed by the fluoroscopy.

Intravenous pyelography: normal

The electrocardiograms revealed low voltage both in standard and precordial leads. In addition, there was left axis deviation and flattening T waves.

Cardiac catheterization was performed. Elevated right atrial diastolic pressure (right atrium 20/18 mm Hg) and prominent y descend and trough were observed

Pre- and postoperative hemodynamic indices are presented in table 1.

The clinical diagnosis was chronic constrictive pericarditis.

Course:

One month later after admission somewhat hard, tumor like mass - 28cm length, 4-5cm width - which was palpated from left to right, in upper abdominal quadrant. This revealed tuberculous, fibrocaceous lymphnodes and mesentery by exprolatory laparotomy on 50th hospital day.

After getting antituberculous chemotherapy (PAS+INH) for 3 months, total pericardiectomy with transverse incision on 3rd ICS was performed on June 25, 1959. A thick pericardium with obliteration of the pericardial space was found. Postoperative recovery and course was excellent.

Pulse pressure increased and venous pressure was remarkably decreased. Cardiac output increased. Total circulation time was shortened. Chest X-Ray revealed normal heart contour and decreased pleural effusion. ECG showed remarkable change in amplitude. Ascites, dyspnea, cyanosis and edema was disappeared. He was discharged on the 3½ months postoperative day without any notable sign.

Few days ago, he visited our out-patient clinic and consulted to attend school.

Summary

A case of chronic constrictive pericarditis recently seen in an 11 year old boy illustrated not only characteristic clinical features of the disease but also the value of certain laboratory procedures such as X-Ray. ECG, hemodynamic studies including cardiac catheterization and effects of surgical correction with antituberculous chemotherapy.

(Table 1)

Hemodynamic effects in patient with chronic
constrictive pericarditis, pre- and postoperatively

Name R. C. Y. 11Y, male

Date 5-14-59 7-9-59

	Before operation	After operation
Body weight (Kg)	27.22	26.05
Height (cm)	124.5	124.5
Surface area (m ²)	1.0	0.98
Hematocrit %	38.0	32.5
Hemoglobin gm/dl	12.5	11.0
Total blood volume index l/m ²	3.226	3.091
Heart rate /min.	93	110
Blood pressure mm Hg		
Systolic	87	100
Diastolic	57	65
Mean	66	77
Pulse pressure mm. Hg	28	35
Cardiac output l/min.	3.024	3.764
Cardiac index	3.024	3.841
Stroke index ml/m ²	28	36
Central blood volume index ml/m ²	370	373
Central blood vol. stroke vol.	13.2	10.8
Appearance time Sec.	15	10
Mean transit time sec.	25.0	18.0
Total circulation time sec.	25.6	20.4

3 CASES OF POSTRABIES VACCINATION ENCEPHALOMYELITIS

Sang Hyup Kim

The incidence of neurologic sequelae of postrabies vaccination encephalomyelitis is 5814:1 (Greenwood), 1194:1 (Redewill) or 7200:1 (Sellers). According to Fermi the mortality rate of this type of encephalitis is one in 50 cases. I am going to present 3 cases of postrabies vaccination encephalomyelitis who were admitted in our department of pediatrics. Seoul National University Hospital during last one year.

Report of cases

First case:

A 12 year old boy was admitted with a complaint of paresthesia of both lower extremities and headache.

Present illness: Nineteen days prior to admission the patient were bitten by a puppy at home and thereafter he received antirabies vaccination for successive 5 days. On 4th day of vaccination he felt headache, paresthesia of both lower extremities, abdominal pain and had a vomiting. Since the day before admission, disturbance of urination developed.

Past history: Three years ago, patient received 21 times antirabies vaccination.

Physical examination: Chest and abdomen revealed negative findings. Difficulties of movement of both lower extremities and walking were noted. And, increased knee jerk and decreased ankle jerk were seen. Both abdominal reflex and cremaster reflex were absent. Abnormal reflexes of Babinski sign, Oppenheim's sign and nuchal rigidity were positive.

Cutaneous sensory changes: (Figure 1, 2) Below umbilicus there was sensory change. Patient felt numbness on the site of this sensory disturbance. Thermoanesthesia was at anterior side of right leg and lateral side of both extremities. Cutaneous sensation of touch was normal. Cutaneous sensation of cold was absent at anterior side of right leg and lateral side of left leg.

Blood and cerebrospinal fluid reveals as follows. (Table 1, 2)

Course and treatment: Patient was given 30mg of prednisolone every day. Two days after getting prednisolone there was urination and improvement of cutaneous sensory disturbances. Since 3rd day of treatment, he was able to move his legs and he had a defecation. On 12th day of hospitalization, difficulty of walking and cutaneous sensory disturbances disappeared completely. Patient was discharged without any residual symptoms.

Second case:

An 11 year old boy was admitted because of nuchal rigidity and vomiting.

Present illness: Fifteen days prior to admission he was bitten by a dog on his right knee joint and thereafter he received antirabies vaccination for 11 successive days. Since 5th day of antirabies vaccination, mild fever and fatiguability developed insidiously. After getting 11th antirabies vaccination, the above symptoms became worse remarkably.

Physical examination: Nutritional state was good. Except increased knee jerk, positive Kernig's sign and nuchal rigidity, there were no other abnormalities.

Past history and family history were non contributory.

Laboratory results of blood and cerebrospinal fluid are as follows.
(Table 3, 4)

Stool: Pinworm (+)

Urine: negative

Course: We administered 30mg of prednisolone every day. On the 10th day of hospitalization, patient was discharged with complete recovery.

Third case:

A 12 year old boy was admitted with complaints of flaccid paralysis of both legs and retention of stool and urine.

Present illness: Since patient were bitten on legs by a dog, he received antirabies vaccination for 19 days. On 16th day of vaccination he complained of pain on his lower leg. On 19th day of treatment, flaccid paralysis ensued and retention of urine and stool developed.

Family history and past history were non contributory.

Physical examination: Nutritional state was moderate. Chest and abdomen revealed negative sign. Reflexes of abdominal wall, cremaster, knee jerk and ankle jerk were absent. Nuchal rigidity was positive. Flaccid paralysis of both lower extremities was positive.

Cutaneous sensory disturbances was noted below 7th dorsal spine. The sensation of touch was absent at the site of lower legs. Mild disturbance of sensation of touch was noted on both thigh. (Figure 3)

Laboratory result of blood and cerebrospinal fluid were as follows.

(Table 5, 6)

Urinalysis: negative

Stool: negative

Course: We gave him 40mg of prednisolone daily for 42 days. On the 4th

day of treatment, hyperesthesia developed above the 6^{ics}. Three days later, the site of hyperesthesia narrowed to between clavícula and 6^{ics}. On 14th day of treatment hyperesthesia disappeared completely. By 22nd day of treatment sensation of touch recovered. Until to have discharge, 57th hospitalization day, flaccid paralysis of both legs still persisted.

During hospitalization, patient had abdominal troubles such as constipation, diarrhea, ascites for about 1 month.

Summary:

I presented 3 cases of post-rabies vaccination encephalomyelitis encountered in our department of pediatrics, Seoul National University Hospital during last one year.

Clinical Observation on the Congenital Heart Disease

Chang Yee Hong, M.D.

Summary:

1. Fifty cases of congenital heart disease were seen for two years from October, 1957 to September, 1959. This represents approximately 1% of the total patients and 5 times of the chronic rheumatic heart disease which were seen during that period of time at the out-patient clinic of Seoul National University Hospital.

2. Sex: Male 31 (62%)
 Female 19 (38%)

3. Age at the first examination:

The patients below 1 year of age were most prevalent and 50% of the cases were below 2 years of age.

4. The chief complaints at the first visit:

In most of the cases, the chief complaints were not those referable to heart disease and the congenital heart disease was an accidental finding. In 20% of the cases the parents had known that the patient had some kind of "heart trouble" before they came to hospital.

5. Maternal illness during pregnancy:

Only in one case, the mother had a history of a febrile illness during early pregnancy. In no case, a history of German measles during early pregnancy could be found.

6. Kind of congenital heart disease:

A. Acyanotic congenital heart disease	40 (80%)
Ventricular septal defect	21

Atrial septal defect	4
Septal defect (unidentified)	5
Atrio-ventricular canal	1
Patent ductus arteriosus	6
Ventricular septal defect + pulmonary stenosis	1
Isolated pulmonary stenosis	2
B. Cyanotic congenital heart disease	10 (20%)
Tetralogy of Fallot	7
Unidentified	3
7. Associated congenital defects	4 (80%)
Mongolism	3
Hypospadias	1
8. Four patients died during two years.	
3 cases: respiratory infection, cardiac failure	
1 case: Post-operation (open heart surgery)	

CLINICAL OBSERVATION ON THE DIPHTHERIA
During 1958-1959

Hee Sook Kay

The clinical observation on 85 cases of diphtheria under 15 years of age who were admitted to Seoul National University Hospital during 1958-1959 are reviewed, and the results are as follows.

1. Among 85 cases, male was 60 and female was 25, and the most of the cases were under 7 years of age. The mortality rate was 5.9%.
2. The occurrence of diphtheria was highest during winter (Dec., Nov., Ja., Feb.) but rare in from July to September.
3. Type of diphtheria was divided into pharyngeal, laryngeal, nasal, laryngopharyngeal, nasopharyngeal and nasolaryngo pharyngeal type on the basis of clinical findings. Among these types, the pharyngeal occupied the majority of the cases and the laryngopharyngeal, the laryngeal was next in order.
4. Fever was noted in 89.4%, dyspnea in 51.8% and cervical lymphnode swelling in 16.5% of the cases.
5. Toxic myocarditis was seen in 3 cases, of whom 2 patients died, and sinus arrhythmia in 5 cases and pneumonia in 2 cases as complication.
6. Serum sickness was seen in only one case.
7. Five cases in whom sensitivity test was done, diphtheria bacilli were sensitive to the most of antibiotics but 4 cases out of 5 were proved to be moderate sensitive to penicillin and streptomycin.
8. Tracheotomy was performed on 20 patients (23.5%), two deaths out of these 20 patients.
9. In all cases diphtheria antitoxin was given. Antitoxin was combined with

antibiotics in 76 cases.

There was no difference in rapidity of disappearance of diphtheria bacilli from the lesion between the group treated with antitoxin + penicillin and that treated with antitoxin + erythromycin. In most of cases diphtheria bacilli disappeared within 5 days by the smear and culture (68.8%, 76.5%).

TUBERCULOSIS ON THE PEDIATRIC SERVICE OF SNU

Dr. Y.S. Kim

Dr. K. Kwak

- 1) In our country, T.B. problem is so urgent that we have tried to evaluate the general T.B. distribution and situation of T.B. problem.
- 2) Tuberculin Test (Screen test) had been done routinely in last year. But its results were not available because of patient special situations (such as environmental, financial reason . . . etc.)
- 3) Statistics charts are based on Tuberculin test, chest and other focal X-Ray study, spinal fluid finding and other clinical symptom.
- 4) Total number of patient (T.B) was 104 which numbers is equivalent to 4.6% of all O.P.D. patient. (2253)
- 5) In generally speaking, we had treated T.B. patient with P.A.S. (0.2 mg/kg) and I.N.A.H. 10 mg/kg. But in meningeal case, we administered dose of S.M. 1.0 mg/day and prednisolone (more than 20 mg). The result has mentioned by Dr. Han's report.
- 6) Primary T.B. was found in 2% of O.P.D. patient. The incidence is high in children under the age of 2 years.
- 7) There were 16 cases of pleurisy. It is more frequent in over the 5 years. 2 cases of them had complication of primary T.B. and advanced pulmonary T.B.
- 8) There were 5 cases of miliary T.B. All of them were over 5 years old.
- 9) There were 16 cases of meningitis. Most of them were over 3 years. 2 cases of them has complication of primary T.B. Most of case have positive finding of cerebrospinal fluid.
- 10) Renal, spine bone, joint T.B., all of them were over 5 years old.
- 11) No patients were observed developing to advanced T.B. after B.C.G. injection.

STATISTICS OF T.B. PATIENTS (1958, O.P.D.)

Age	Sex	No.		Primary	Pleu- risy	Mili- ary	Menin- gitic	Spine	Bone & Joint	Renal	Advanced	Total
0-2	Male	580	915	15	2	-	4	-	1	-	-	22
	Female	335		10	-	-	1	2	1	1	1	14
3-4	Male	225	423	2	1	1	2	-	-	-	-	6
	Female	168		1	1	-	5 (1)	1	-	-	-	8
5-6	Male	132	234	4	3 (1)	1	1	1(1)	1	-	2	13
	Female	102		1	2	1	1	-	-	-	1	6
7-8	Male	91	159	3	1	-	-	-	-	-	2	6
	Female	68		5	1	-	-	-	-	-	2	8
9-10	Male	96	162	-	2 (1)	2	2 (1)	1	-	1	-	8
	Female	66		1	2	-	-	-	-	1	1	5
11-15	Male	192	340	-	1	-	-	-	1	1	-	3
	Female	148		2	-	-	1	-	-	-	2	5
TOTAL	Male	1366	2253	24	10	4	9	2	3	2	4	58
	Female	877		20	6	1	8	3	1	1	6	46
		2253	2253	44 (2.1%)	16	5	17	5	4	3	10	104 (4.6%)

Clinical Observations Concerning to the Mongolism and
Statistical Observations of Dermal Configuration of Korean Peoples.

(Kyong Tai Kim, M.D., Dept. of Peds., S.N.U.)

The clinical manifestations of seven cases of mongolisms who visited our department during past one year are as follow;

Pt's name	C.T.H.	K.C.S.	S.T.W.	K.G.M.	L.K.S.	O.B.S.	K.K.O.
Age (month) Sex	19	23	20	4	7	25	28
Mother's age (year)	35	46	45	46	44	38	47
Order of birth	4th(L)	3rd(L)	4th(L)	2nd(L)	2nd(L)	6th(L)	4th()
Complications	I.V.S.D.	A.V.	Leukemia	-	-	-	-
Brachycephalus	+	+	+	-	+	-	+
Epicanthic fold	+	+	+	+	+	+	+
Slant upward eye	+	+	+	+	+	+	+
Flattened nose	+	+	+	+	+	+	+
Incurved short 5th finger	+	+	+	+	+	+	+
Separated 1st-2nd toe	+	+	+	+	+	+	+

I.V.S.D. Diagnosis was established by heart catheterization.

A.V. Atrio-ventricular cannal.

L. Last child.

Pt K.K.O. was 2nd from last child. (Only one exception.)

Pt S.T.W. (Leukemia pt) had systolic mummur at apex, but could not establish definite diagnosis.

Besides above symptoms, there were also retardation of mental and physical development. X-Ray showed bone ages were delayed and teeth eruptions were delayed in almost of all case.

As the dermal configuration of mongolism are somewhat different from that of normal man, 100 of Korean control groups were checked for palmar and plantar configuration.

Digital pattern

	I			II			III			IV			V		
	Lt.	M.	C. K.C. M.	C.	K.C. M.	M.	C.	K.C. M.	M.	C.	K.C. M.	C.	K.C.		
W	22.4	30.8	16	11.9	33.4	25	13.6	17.4	12	32.8	36.9	24	18.3	12.0	8
U	73.0	62.7	78	82.4	36.3	56	83.5	71.4	81	58.7	60.2	67	77.1	85.4	85
R	0.6	0.8	4	2.3	19.4	12	1.7	2.6	5	5.1	0.9	7	2.9	0.1	6
A	4.0	5.8	2	3.4	10.9	7	1.1	8.6	2	3.4	3.0	2	1.7	2.6	1

	I			II			III			IV			V		
	Rt.	M.	C. K.C. M.	C.	K.C. M.	M.	C.	K.C. M.	M.	C.	K.C. M.	C.	K.C.		
W	25.4	28.6	14	14.5	35.7	18	11.3	19.4	16	31.8	46.6	21	18.9	14.6	6
U	70.6	57.3	81	82.3	31.1	54	86.4	70.9	78	60.2	52.0	72	75.4	84.0	89
R	0.1	0.8	4	1.7	20.3	17	1.1	3.4	5	5.7	0.3	7	4.6	0.3	5
A	3.5	3.3	1	1.1	12.9	11	1.1	6.3	1	2.3	1.1	0	1.1	1.1	0

W. .. Whorl U. ... Ulnar loop R. ... Radial loop A. ... Arch
 In the 4th and 5th digits there are much incidence of Radial loop in
 Mongolism compare to the control.

M. .. Mongolian C. .. Control (By Walker, N.F., M.D. Gan. of Ped.
 vol 50 No.1 Page.8) K.C. ... Korean Control.

There are much Ulnar loop in the 2nd digit in the mongolism.

Palmar configurations:

3rd interdigital loop; High incidence in Mongolism
 M. 54% C. 31% K.C. Lt. 21% Rt. 17%

Tri-radius; High location in Mongolism
 M. 85% C. 12% K.C. Lt. 17% Rt. 19%

Plantar configurations:

Whorl is frequent in control
 M. 1% C. 30% K.C. Rt. 31% Lt. 38%

Arch tibial is frequent in Mongolism
 M. 47% C. 0.5% K.C. Rt. 2% Lt. 4%

Loop dital is equal in incidence between mongolism and control,
 but the ridge count is less in mongolism compare to that
 control.

Compilation of Numbers and Types of Patients
Seen on the Pediatric Service.

WARD

1959

Diagnosis	Age	0 - 1	1 - 2	2 - 4	4 - 6	6 - 8	8 - 10	10-12	12-15	Total	Pled
Bronchiolitis	M	3								3	
	F										
Bronchitis	M							1		2	
	F			1							
Meningitis Tb	M	1	3	9	7	3	1	1	1	48	5
	F	3	3	5	4	5	1		1		
Meningitis(other)	M	2	3	5	8		1	1	4	29	2
	F	3					2				
Bone & joint Tb	M			7	2					12	
	F		1		1			1			
Renal Tbc	M									1	
	F				1						
Pulmonary Tbc	M			3		2				5	1
	F										
Pneumonia	M	6		1	3			1		27	5
	F	7	7	2							
Pleurisy	M					2				3	
	F				1						
Sepsis	M	3		1						4	1
	F										
Diphtheria	M	6	8	11	16	13	7	11	12	122	5
	F		3	5	7	7	7	3	6		
Myocarditis	M	3							2	6	2
	F						1				
Croup	M	2	2	1						5	
	F										
Tonsillitis, pharyngitis	M	1	1			1				5	
	F				1		1				

		0-1	1-2	2-4	4-6	6-8	8-10	10-12	12-15	Total	Pled
Whooping cough	M									1	
	F	1									
Cong. H. Disease	M	1		1						4	
	F				1			1			
C.V.A.	M									2	1
	F	1						1			
Rheumatic fever	M									2	
	F					1		1			
Hepato-splenomegaly	M			2						6	
	F				3	1					
Burn	M		3	1		1				9	1
	F	1	2	1							
Hemophilia	M			1		1				2	
	F										
Paragonimiasis	M					1				2	1
	F		1								
Bowel obstruct	M	5		2	1			1		10	2
	F	1									
Nutritional dist	M		3							5	
	F	1	1								
Appendicitis	M									2	
	F					1		1			
Encephalitis	M	6	4	6	14	1	3	4	7	63	9
	F	3	1	1	4	2	1	5	1		
Cerebral palsy	M		1							1	
	F										
Eye	M					1		1		2	
	F										
Trauma & Fractive	M				1	2	1	1	1	11	
	F			2			1		2		
Premature	M	7								9	4
	F	2									
Gastro-enteritis	M	1	2							6	
	F	1	1			1					

		0-1	1-2	2-4	4-6	6-8	8-10	10-12	12-15	Total	Pled
Anemia	M							1	1	3	1
	F						1				
Diarrhea	M	11	5	1	1					25	2
	F	2	5								
Fever (common cold & others)	M	19	6	6	7	8	5	5	7	107	12
	F	10	5	7	6	8	2	4	2		
Bils duct inflam	M			1						2	
	F	1									
Mongolism	M		1							1	
	F										
Hydrocephalus	M	1	1						1	3	
	F										
Measle	M		2	2	1					7	
	F		2								
Eabies	M				2					3	3
	F			1							
Rheumatic H. dis	M								1	1	
	F										
Purpura	M				1		1			3	
	F				1						
Bronchial foreign body	M	1								1	1
	F										
Leukemia	M			1	1		1	1	1	6	
	F						1				
Tumor	M		1		1				1	6	
	F							1	2		
Empyema	M							1		4	1
	F		3								
Hepatic cirrhosis	M					1				1	
	F										
Bronchial asthma	M									3	
	F		1	1	1						
Hepatitis	M				1					1	
	F										

		0 - 1	1 - 2	2 - 4	4 - 6	6 - 8	8 - 10	10-12	12-15	Total	Pled
Nephritis	M				1			1		3	
	F							1			
Peritonitis	M									2	
	F							1	1		
Nose & esophagus	M		1	2				1	1	5	1
	F										
Melena	M	1								2	1
	F	1									
Tetanus	M	5			1				1	8	5
	F	1									
Myelitis (post vaccinal)	M							2		2	
	F										
Hare - Lip	M	2			1			1		6	
	F	2									
Typhoid	M					2				3	
	F							1			
Poliomyelitis	M	1	1		4					6	
	F										
Guillian - Barre	M				1					2	
	F					1					
Epilepsy	M			1						1	
	F										
Total (626)	M	88	48	64	75	38	21	34	43	626	
	F	41	35	26	28	28	20	17	20		
Died	M	17	3	6	10	1	2	1	4		
	F	12	1	4		1	2	2	1		

Ward 626 / Male 411
 Female 215

Diagnosis		Age									Total
		0 - 1	1 - 2	2 - 4	4 - 6	6 - 8	8 - 10	10-12	12-15		
Pulmonary Tbc	M	2	7	10	12	6	6	9	7	100	
	F	4	4	3	11	2	6	7	4		
Mitral Dis.	M								1	1	
	F										
Renal Tbc	M						1			1	
	F										
Bone & joint Tb	M		1	3	2			2		11	
	F				2				1		
Other organ Tb	M		1		2	1	1	1		9	
	F			1	1			1			
Whooping cough	M	4	4	5	6	1				31	
	F	3	5	2	1						
Bronchiolitis	M	19	10							49	
	F	11	9								
Bronchitis	M			10	9	4	7	4	5	71	
	F			16	2	3	2	4	5		
Diphtheria	M	3		2	4	1	1	2		20	
	F			4	3						
Asthmatic Bronch.	M	1	2		2	1				12	
	F	1	2	2			1				
Meningitis Tbc.	M	1	8	17	3	2		1		51	
	F	2	2	6	4	3		1	1		
Other meningitis	M	1	1	4	1	1		1		16	
	F	1	1	2	2		1				
Pleurisy	M	1	1	3	4	3	3	1	3	33	
	F			4	4		5		1		
Pneumonia	M	5	4	5	3				1	29	
	F	5	3	3							
Cong. Heart. Dis.	M	2	2	5	1	1		2		23	
	F	2	4	3		1					

		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Helminthiasis	M		4	15	8	6	10	13	7									95
	F		2	5	4	6	4	5	6									
Paragonimiasis	M				1	1	1	1	2									7
	F					1												
Gastro-enteritis	M	19	11	2	6	2	3	7	4									73
	F	7	2	1	1	1	2	2	3									
Hepatitis	M				2	1	4	1										12
	F	1		1	1		1											
Lymphadenitis	M	1	1	8	1	1												20
	F	2		1	1	2	1		1									
Rheumatoid Dis.	M				1	3	1	1	1									12
	F			1	1		1	2										
Diarrhea	M	39	24	4	3	1		3	1									120
	F	25	11	2	2	2	2	1										
Poisoning	M	1		1														4
	F	1	1															
Gastro-intest & linder nurish	M	9	6	10	8	1	2	4										65
	F	6	6	6	3		1	1	2									
Others	M	6	4	9	10	6	4	1	2									68
	F	6	5	2	1	4	3	3	2									
Pericarditis	M							1										1
	F																	
Un-determined	M	41	39	48	38	37	37	43	22									548
	F	42	30	44	37	32	27	30	1									
E. N. T.	M	5	2	3	1			1										26
	F	4	3	2	1	1	1	2										
Eye	M	1		5	1									1				11
	F	1						2										
Eczema etc.	M	8	4	3	5	1		1										50
	F	9	5	3	6	1		3	1									
Purpura	M					1	1	2										10
	F			2	1	2	1											
Appe. gleus. Fracture	M	8	3	4	3	1	2		2									30
	F	1	1	2	1	1	1											

		0 - 1	1 - 2	2 - 4	4 - 6	6 - 8	8 - 10	10-12	12-15	Total
Neuro-surg. cerebral palsy	M	7	9	6	6	3	1	1	3	56
	F	4	3	6	5			1	1	
Nephritis	M		1	2	3	6	5	2		36
	F			3	6	2	2	1	3	
Poliomyelitis	M	10	18	5	2	2		1		62
	F	6	11	4	1			1	1	
Tumor	M	4	1		2	1			3	15
	F	2		1					1	
Wilm's tumor	M			1						3
	F	2								
Hydrocephalus	M	5	2	2						9
	F									
Malformation	M	2			1				1	6
	F	1	1							
Peritonitis	M					2				4
	F							1	1	
Hepatospleno- megaly	M			1				1		4
	F	1						1		
Measles	M	1	4	7	1					24
	F	5	2	3		1				
Rabies	M					1				1
	F									
Epilepsy	M			4	1		2	3	4	16
	F			1				1		
Febrile convulsion	M		1	1						5
	F	2	1							
Mongolism	M	1								3
	F	1			1					
Empyema	M	1		1						5
	F	1	2							
Uro-genital	M	3		2		1	1			10
	F					2		1		
Tetanus	M	2								2
	F									

		0	1	2	3	4	5	6	7	8	9	10-12	12-15	Total
Typhoid	M			1								1		4
	F												2	
Leukemia	M	1		1										2
	F													
Encephalitis	M			2		1	1							6
	F		1		1									
Arthritis	M		1											1
	F													
Myositis	M	1		1										2
	F													
Anemia	M								5			1		7
	F		1											
Ricket	M	2												5
	F	2	1											
Malaria	M								1					1
	F													
Hemophilia	M				1									1
	F													
Cong. Syphilis	M	1												2
	F	1												
Common cold	M	74	49	40	25	12	15	15	10					396
	F	46	24	25	16	12	10	14	9					
Tonsillitis	M	17	10	18	15	3	7	8	7					154
	F	13	16	9	14	5	3	6	3					
Total	M	309	235	269	194	115	122	134	88					2451
	F	221	159	172	134	84	75	90	50					

Ward Male 99

Total . . . 148 patients

Female 49

Age

Under 1 year.	41 Pts.	8 year - 9 year	7 Pts.
1 year - 2 year.	7 "	9 " - 10 "	5 "
2 " - 3 "	13 "	10 " - 11 "	5 "
3 " - 4 "	12 "	11 " - 12 "	4 "
4 " - 5 "	8 "	12 " - 13 "	9 "
5 " - 6 "	7 "	13 " - 14 "	7 "
6 " - 7 "	12 "	14 " - 15 "	4 "
7 " - 8 "	5 "	15 " - 16 "	2 "

Expired patients . . . 29 "

Common cold	2	Tonsillitis	1
Bronchitis	1	Bronchiolitis	9
Bronchial asthma	1	Pneumonia	8
Pneumocystic pneumonia	1	Lung abscess	1
Pleurisy	2	Pulm tbc	2
Miliary tbc & meningitis	2	Meningitis tbc	27
Aseptic meningitis	2	Sepsis	3
Empyema	1	Emphysema subcutaneous	1
Diphtheria	2	Postdiphtheria paralysis	1
Tetanus neonatorum	6	Shigellosis	2
Pertussis	1	Digugilmo syndrome	1
Poliomyelitis	3	Leukemia	3
Aplastic anemia	4	Iron deficiency anemia	1
Purpura	2	Chloroma	1
Liposarcoma	1	Pericarditis	1
Rheumatic fever	2	Rheumatic heart disease	1
Congenital heart disease	2	Acidosis	1
Diarrhea	6	Postvaccinal myelitis	2
Infantile myoclonic seizure	1	Chorea	1
Epilepsy	2	Febrile convulsion	1
Convulsion, unknown origin	1	Liver abscess	2
Liver abscess	1	Congestive splenomegaly	1
Hepatosplenomegaly	1	Ileus	5
Acute glom. nephritis	5	Subacute nephritis	1
Chronic nephritis	1	Prematurity	3
Intracranial hemorrhage	1	Cerebral contusion	1
Prob. encephalitis	1	Hypertensive encephalopathy	1
Some organic lesion on right side of the brain	1	Brain tumor	1
Spine tbc	1	Tb epididymitis	1
Spina bifida	1	Hypothyroidism	1
Abdominal abscess	1	Ambilical hernia	1
Unknown	3	High fever	1

(Surgery, E.N.T., Ophthalmic - General, Neuro, Orthopedic)

Diagnosis	Age	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	
		Penosental hypospachia	M						1									
Hamangioma	F																	1
	M		1															1
Hernia	M	1	1				1											3
	F																	
Abscess	M						1											1
	F																	
Hydrocephalus	M																	1
	F	1																
Congenital heart disease	M							1										2
	F														1			
Abd. tumor	M	1																1
	F																	
Nasal stenosis	M																	1
	F														1			
Epiphyseal separation	M			1														1
	F																	
Spinal tbc	M		1	2	2	2	3	2	1	1								17
	F		1	1				1										
Congenital bile duct atresia	M																	1
	F	1																
Osteomyelitis	M		1				1					1		1				4
	F																	
Tracheal foreign body	M																	1
	F		1															
Appendicitis	M		1					1	1	1	1		1	2				9
	F														1			
Cerebral contusion	M		1		1				1						1			4
	F																	

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Hare lip	M	2															3
	F					1											
Fractures	M			1	1	1							1			1	8
	F					1	2										
Abd. Contusion	M																1
	F			1													
Esophageal stricture	M				1												1
	F																
Maxillary cyst	M					1											1
	F																
Burn	M	1			1	1	1	1					1		1		11
	F		1				3										
Bronchial foreign body	M	1															1
	F																
(Pan)peritonitis	M																2
	F							1						1			
Cerebral P. W.	M				1	1											2
	F																
Trauma	M				1			1		1			1				6
	F									1					1		
Limping gait	M							1									1
	F																
Myositis	M					1											1
	F																
Walking dist.	M																1
	F													1			
Bone tbc	M						1	1									2
	F																
Bone tumor	M									1							1
	F																
Anaphylactoid purpura	M							1									1
	F																
Intracranial Hemorrhage	M											1					1
	F																

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Ileus	M		1					1			1						5
	F	1		1													
Ingainal fistula	M							1									1
	F																
Ear bleeding	M				1												1
	F																
Perforating wound of cornea	M								1								1
	F																
Total																	100

Q. P. D.

1960 Jan. 1 - July 31

Male ... 1408

Female ... 1042

Total ... 2450

Diagnosis		Age															Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Brain tumor	M														1		2
	F								1								
Pseudo croup	M	1		1													2
	F																
Drug allergy	M		2														3
	F	1															
Eye disease	M		1														4
	F		1	1	1												
Internal Hemorrhoid	M												1				1
	F																
Etiocap.	M		1			1											2
	F																
Facial palsy	M		1														1
	F																
Typhoid fever	M												1	1			3
	F												1				
Laryngitis	M	2	1						1				1				7
	F	1							1								
Synovitis	M														1		1
	F																
Esoph. stnen	M																2
	F	1			1												
Rheumatoid arthritis	M	1							1				1				5
	F				1						1						
Mumps	M			1		1	1			1							4
	F																
Diarrhea	M	81	17	6	9	3	1	3	2	2	1	3	3		1		208
	F	46	5	1	3	1	3	3	1	1		1	1				
Tonsillitis	M	4	8	4	4	4	5	3	1	3	5		4	4	1	1	87
	F	5	3	3	2	1	1	6	3	2	1	1	5	1	1	1	

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Herpia	M	2				1	1	1									6
	F		1														
Acute Gastro-enteritis	M	22	6	7	8	4	3	6	2	3	6	4	4	5	5		155
	F	13	4	7	7	5	1	2	1	2	2	2	6	4	4		
Ascariasis	M	5	3	10	5	11	3	17	4	5	7	5	7	5	1	2	165
	F	6	3	5	1	4	12	5	4	3	3	4	15	4	4	2	
Arthritis	M				2		2	1	1	1		1	1				13
	F	1		2				1									
Pneumonia	M	7	2	1	1		1	2		1				1		1	32
	F	6	3	1	3								1			1	
Cystitis	M			1			1	1									7
	F		1			1		1	1								
Pyelonephritis	M												1				1
	F																
Bone Tbc	M		1	1		1											9
	F		1	2	2	1											
Peritonitis	M	1				1		1									4
	F											1					
Chicken pox	M		1	1													5
	F	1			1			1									
Urethritis	M																1
	F								1								
Liver cirrhosis	M							1		1	1						4
	F											1					
Bronchiolitis	M	5	3										2				16
	F	4	1					1									
Bronchitis	M	13	6	5	2	2	5	3		1	2	2	1	1	2		86
	F	13	3	4	4		4	2		1	1	2	5	1	1		
Diphrosia	M		1			2				1							8
	F		1		1		2										
Dephritis	M		2	2	6	4	2	4	4	1	1	2	3	1			47
	F				4	3	1	1					1	3	2		
Pharyngitis	M	6	1	1	1	2	1	1	2		2	2	1	1	2		38
	F	6	1	1	3	1		2			1						

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Ileus	M	3	1		1												6
	F	1															
Mongolism	M	3	1	1								1					8
	F	2															
Oxyuriasis	M		1				1	1				1					4
	F																
Hemophilia	M		1			1											2
	F																
Aphtha	M				1												1
	F																
German measles	M																1
	F		1														
Schizophrenia	M																1
	F				1												
Common Cold	M	92	34	29	22	12	8	15	12	2	11	7	15	7	15	3	461
	F	61	23	16	8	3	8	11	7	8	8	6	6	4	10	1	
Poliomyelitis	M	23	12	4	3	2			1		1	2					79
	F	16	7	2	2				1			1	1	1			
Appendicitis	M						1				2			2	1		15
	F						1		2	1	1	4					
Epilepsy	M	2	2	4	1	1		2	1	1		3	1	1	2		29
	F	1	1	3	1	1			1	1	1						
Whooping cough	M	5	3	1	4	2	1	1									22
	F	2	1			1	1										
Hydronephrosis	M						1										3
	F	1									1						
Congenital syphilis	M		1														1
	F																
Simple goiter	M														1		3
	F													1	1		
Thyroiditis	M																1
	F												1				
Sex differentiat- ion	M													1			1
	F																

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Laryngitis tuberculosa	M														1		1
	F																
Osteomyelitis	M																1
	F	1															
Liposarcoma	M				1												1
	F																
Chorea	M							1				1					2
	F																
Syphilis	M																1
	F											1					
Age differentiation	M			1	1			1		1	1		2	1	1		11
	F					1							1				
Enuresis	M										1						2
	F											1					
Spinal cord tumor	M	1															1
	F																
Rheumatic fever	M							1		2			1			1	8
	F												2		1		
Leukemia	M	1	1		2		1			1				1			7
	F																
Cold abscess	M		1														1
	F																
Obesity	M											1					2
	F														1		
Miarene	M																1
	F														1		
Growth retardation	M	1	1		3	1											10
	F		2		1					1							
Meningitis	M	8	10	6	4	6	2	4	1	1					1		83
	F	8	6	10	3	1	2	2	1	2	2	1	1	1			
Co intoxication	M						1										1
	F																
Walking disturbance	M					1											2
	F			1													

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Congenital heart	M	9	1	4	4												29
	F	5	2	2							1			1			
Tetanus	M	7					1										10
	F	2															
Stomatitis	M	2	1														6
	F	1		1			1										
Myelitis	M																1
	F				1												
Encephalitis	M	1	2	3		1	1			1							14
	F	1					1	1					1		1		
Phymosis	M	1															1
	F																
Myalgia	M						1										1
	F																
Erythema nodosum	M																1
	F				1												
Neuralgia	M				2					1		1					9
	F				1	1						3					
Neurathenia	M									1				2	1	1	7
	F					1		1									
Burn	M		1														1
	F																
Trichomonas infestation	M																1
	F										1						
Hepatitis	M				2			1					2	1	1		9
	F											1			1		
Hydrocele	M		1		1												2
	F																
Malnutrition	M	6				2				1							24
	F	7	5		1				1			1					
Cerebral palsy	M	3	2									1					11
	F	3			1								1				
Sinusitis	M		1		1												2
	F																

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Dysentery	M			3													5
	F									1					1		
Tumor	M	2					3										10
	F	1	1			1				1					1		
Lymphadenopathy	M	3	4	5		1	1	1		1					1		25
	F	2				2	1	1		1			1				
Pleurisy	M		2	1	1	1	2	1			1	2	1	1	2		29
	F		2	1	1	2	1	1			4			1	1		
Pulmonary tbc	M	8	12	8	5	12	6	4	5	7	5	6	13	8	6	1	168
	F	6	1	4	6	5	4	3	1	3	9	3	7	4	4	2	
Spine tbc	M	1		1			2	1		1							12
	F			1	2	3											
Measles	M	2		2			1										6
	F			1													
Exanthem subitum	M		1														1
	F																
Acute rhinitis	M	2															3
	F			1													
Otitis media	M	3	2		2	1						2	1		1		15
	F	1			1	1											
Bronchial asthma	M	2		2								1	1				10
	F			1					1	1	1						
Microcephaly	M	2															2
	F																
Speech Disturbance	M																2
	F				2												
Congenital laryngeal stridor	M																2
	F	2															
Congenital malformation	M			1		1											6
	F	3	1														
Spina bifida	M										1						1
	F																
Mental retardation	M	2	1		1										2		10
	F	2							1	1							

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Pyloric stenosis	M	1															1
	F																
Constipation	M	2			1												4
	F			1													
Myositis	M	1		1											1		9
	F	3	1		1	1											
Adenoid	M						1										3
	F	1									1						
Thrush	M																1
	F	1															
Retropharyngeal abscess	M	1															1
	F																
Postdiphtheric paralysis	M				1												6
	F		2		1		1		1								
Adont clasia	M																1
	F													1			
Empyema	M				1												3
	F	2															
Miliary tbc	M					2											4
	F	1							1								
Sepsis	M	2															2
	F																
Diphtheria	M	5	1	2	2		2	1	1		1		1	1			28
	F		2	1	4	1	1							1	1		
Prematurity	M																1
	F	1															
Physiologic jaundice	M	2															4
	F	2															
Transitory fever	M	1															1
	F																
Neuritis	M				1										1		3
	F												1				
Febrile convulsion	M		1			1	1	1									4
	F																

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Rabies	M							1									1
	F																
P. U. O.	M		2	1			1	1			1		1	1			13
	F			1	2						1	1					
Hemi paralysis	M		1														1
	F																
Scarlet fever	M			1					1								2
	F																
Heart failure	M														1		1
	F																
Hemangioma	M	1															3
	F		1	1													
Megacolon	M	1															1
	F																
Congenital atresia of Bile duct	M																2
	F	2															
Dermatitis	M	2			1			1					1				11
	F	4	1			1											
Eczema	M	6	1	1					1								19
	F	8					1	1									
Strophulus infantum	M	1															1
	F																
Furuncle	M	3															5
	F	1			1												
Banti syndrome	M												1				2
	F							1									
Splenomegaly	M																1
	F												1				
Richets	M	1															1
	F																
Wilms tumor	M	1															3
	F	2															
Neuroblastoma	M	1															1
	F																

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Routine check	M	8	4	1	4	2	4	3	3	1	5	1	5	1	4		60
	F	1	2	2	2	1		4					1			1	
Paragonimiasis	M				1			1	1		1					2	8
	F									1		1					
Nabel colic	M	1		1													3
	F					1											
Mercury poisoning	M														1		1
	F																
Meningo cele	M	1															1
	F																
Hydrocephalus	M	4															6
	F	2															
Guillian Barre	M				1												1
	F																
Vitamin deficiency	M			1										1	1		3
	F																
Postvaccinal encephalomyelitis	M													1			1
	F																
Abscess	M	1			1									1			4
	F								1								
Umbilical granuloma	M	1															2
	F	1															
Jaundice	M											1					2
	F	1															
Urticaria	M	1			1								1				7
	F				1	2									1		
Anemia	M	5	3		2	4	2	2	3		2	3	3	1	3	1	43
	F			1		2	1		1		2	1			1		
Purpura	M		2				1								2		8
	F				1	1	1										
Hypertension	M				1												1
	F																
Clonorchis sinensis	M	1															1
	F																

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Intoxication (Bengol)	M																1
	F	1															
Hepato- splenomegaly	M	1	1			1											4
	F					1											
Hodgkins disease	M												1				2
	F							1									
Arthralgia	M					1											1
	F																
Trauma	M	1		1	1	1						1					9
	F		1	1	1			1									
Epistaxis	M																1
	F				1												