Staff Meeting Bulletin
Hospitals of the » » »
University of Minnesota

Polyps of Rectum and Colon

Volume XIII Friday, October 31, 194 Number 5

STAFF MEETING BULLETIN
HOSPITALS OF THE . . .
UNIVERSITY OF MINNESOTA

Volume XIII | Friday, October 31, 1941 | Number 5

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Published for the General Staff Meeting each week during the school year, October to June, inclusive.

Financed by the Citizens [illegible]
Alumni and Friends.

[illegible]

I. LAST WEEK

Date: October 24, 1941

Place: Recreation Room
Powell Hall

Time: 12:15 to 1:10 P.M.

Program: "Bronchiectasis"
John R. Paine and
King A. A. Merendino

Discussion
Daniel L. Fink
K. W. Stenstrom
Thomas Lowry
Irvine McQuarrie
Arild Hansen
John R. Paine

Present: 137

Gertrude Gunn,
Record Librarian

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II. ANNOUNCEMENTS

1. SEMINAR IN PATHOLOGY

104 Institute of Anatomy, Monday, November 3, 1941, 12:30 p.m.
"Pathology of Gastritis" - -
Dr. Robert Hebbel.

Visitors welcome.

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2. THE MEDICAL FACULTY DINNER

The annual dinner meeting of the General Medical Faculty will be held on Thursday evening, November 6, at 6:15 o'clock in the Large Ballroom of the Coffman Union.

Dr. Wallace H. Cole, who recently returned from England, will speak on his experiences as Director of the American Hospital in Britain, and Theodore C. Blegen, Dean of the Graduate School, will discuss "Glimpses of Northwest Medical History." Acting President of the University, Walter C. Coffey, will be our special guest. The remainder of the program will be given over to a brief presentation of the significant developments which have occurred in the Medical School during the past year.

Faculty wives are cordially invited to attend this meeting. Dinner reservations will be $0.85 per plate. Kindly make reservations with Dean Diehl's office not later than Monday, November 3, since it is necessary to inform the Union regarding definite reservations on November 4. Dinner tickets will be obtained at the door.

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3. MINNESOTA MEDICAL FOUNDATION

The Minnesota Medical Foundation second annual meeting will be held in the Campus Club dining room, Coffman Memorial Union, Friday, November 7, 6:30 P.M. Dinner $1.00 a plate. Annual business meeting, special guest speaker, Dr. Morris Fishbein, editor Journal of the American Medical Association. Please make reservations with Dean Diehl's office. Members and all interested physicians are cordially invited to attend.

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4. CENTER FOR CONTINUATION STUDY

Medicine

Radiology of Chest - November 3-5
Sulfonamide Therapy - November 10-12
Urology - - - - - - - November 10-12
Diseases of Infancy
and Childhood - - - December 15-20

Hospital

Occupational Therapy - November 17-19
Medical Social Service - November 24-26

Public Health

Public Health Nursing - November 6-8

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UNIVERSITY OF MINNESOTA
Center for Continuation Study

Continuation Course in
School and City Public Health Nursing November 6, 7, 8, 1941

Program

Thursday, November 6

8:30 - 9:30	Orientation Center for Continuation Study ..... Mr. Nolte Continuation Course in Public Health Nursing..... Dr. O'Brien
9:30 - 11:15	School Health Program ..... Dr. Ellis, Miss Grout, Mrs. Fulton
11:15 - 12:00	School Health Council ..... Mr. Jack
1:30 - 2:00	Physical Examinations of Employees ..... Dr. Kernan
2:00 - 2:30	Physical Examinations by Physicians ..... Dr. Kennedy
2:30 - 3:00	Physical Examinations by Nurses with Parents Present .... Miss Frisvold
3:00 - 3:30	Physical Examinations -- Preschool ..... Miss Larson
3:30 - 4:00	Discussion ..... Miss Grout
4:00 - 4:45	Tea - Center for Continuation Study lounge.
4:45 - 5:45	Impairment of Hearing in School Children ..... Dr. Boies
6:00	Group dinner - Center for Continuation Study dining room.
7:30 - 9:00	Principles of Nutrition ..... Dr. O'Brien School Lunches ..... Mrs. Hutton

Friday, November 7

8:30 - 9:15	Sex Hygiene ..... Dr. Winther
9:15 - 10:00	Home Nursing ..... Miss Fryer
10:00 - 11:00	City Health Program ..... Dr. Feldman
11:00 - 12:00	Round Table -- Administrative Practices ..... Miss Segner
1:30 - 2:30	Communicable Disease Control ..... Dr. Fischer
2:30 - 3:30	Discussion: Scarlet Fever, Pertussis and others .... Dr. Anderson
3:30 - 4:30	Common Cold ..... Dr. Diehl
4:30 - 5:30	Maternal and Infant Hygiene ..... Miss Hestad
6:30	Dinner -- Minnesota Public Health Association --- Nicollet Hotel "Keeping Tuberculosis Out of Our Schools" Dr. Berthold Pollak, Medical Director, Hudson County Tuberculosis Hospital, Jersey City, New Jersey. Tickets $1.50

Saturday, November 8

8:30 - 9:15	Skin Diseases ..... Dr. Lynch
9:15 - 10:00	School Dental Program ..... Drs. Knutson and Irwin
10:00 - 10:45	Mental Hygiene ..... Mrs. Cummings
10:45 - 11:30	In-Service Training for Teachers ..... Dr. Scherer
11:30 - 12:00	Discussion
12:00 - 2:00	Luncheon Round table -- Health Education ..... Miss Grout Certificates of Attendance ..... Mr. Nolte

VI. POLYPS OF RECTUM AND COLON

William C. Bernstein

The subject of polyps of the rectum and colon is presented with the hope that we may adopt a more uniform approach to the problems involved. This report is neither a presentation of original investigations on our part nor a statistical study of our experience in this institution. It is, however, an attempt to crystallize the available information on the subject as it relates to our own problems.

Since 1925 rectal and colonic polypi have received a great deal of attention from numerous investigators. Since the publication of Lockhart-Mummery's paper in that year the presence of polypi in the bowel is recognized as a serious threat to the future health and welfare of the individual possessing them because of the frequency with which they develop malignant changes.

A polyp of the rectum or colon is usually an adenoma or papilloma which arises from the mucous membrane of the bowel. Polyps may occur singly or they may be multiple. The number of polyps present in an individual may be so great that the bowel lining is literally covered with the growths. When there are more than a few isolated polyps present in the bowel, the condition is referred to as Multiple Polyposis or Multiple Polypoid Disease of the Rectum and Colon.

Development of Polypi

The three theories of polyp formation are the following:

1. Irritation
2. Reparative Process
3. Heredity

1. Irritation Theory has definite supportive evidence in the occurrence of the so-called pseudo polyps or benign hyperplasias on the mucosa of a colostomy stoma and those which develop 3 to 6 inches above or below an ulcerating carcinoma of the bowel. These lesions are simple hyperplasias with or without inflammatory infiltration. The staining properties of the cells are exactly the same as those of the normal surrounding tissue.

About 50% of all polypoid lesions of the large bowel, both benign and malignant, occur within the rectum proper. Since the lining of the bowel in this area is subjected to more trauma than that in any other site it would seem plausible to assume that irritation does play a definite part in the cause of the disease.

2. Reparative Theory finds some support in the fact that pseudo-polyposis is frequently seen following an extensive ulcerative lesion of the bowel; for example, chronic ulcerative colitis. This, however, might also be the result of chronic irritation and would, therefore, be supportive evidence for the irritation theory.

3. Theory of Heredity, however, is the one which seems to have the bulk of the evidence in its favor. (This is the most tenable to us.) Here we do not base our contention on the development of so-called pseudo-polyps under abnormal conditions in the body but rather on the development of the polyps in otherwise normal healthy individuals who have no apparent reason for their presence.

The factor of heredity has been brought to the attention of the profession and stressed by several writers in recent years. Those who have paid considerable attention to the subject are in almost complete agreement as to the part played by heredity and of the extremely hazardous prognosis which is to be offered to sufferers from this disease. The first report of a group of cases to demonstrate that there was an hereditary factor in this disease was published by Port in 1897. Doring, Wechselmann, and Thorbeke later added more examples to this group of cases and concluded that the disease was hereditary in 50% to 60% of cases. Lockhart-Mummery in 1925 published a paper in which he presented a large number of cases to show that heredity plays an important role and from which he concluded that adenomatous polyps of the large bowel is a condition which tends to develop in suc-

ceding generations in the same family.

The cases that have been reported since the publication of Lockhart-Mummery's paper constitute sufficient evidence in our opinion to show that the disease has a definite heredo-familial tendency. McKenny, in his paper of 1938, offers evidence for the hereditary factor by the discovery of this disease in four very young children in one family. We do not feel that the appearance of the disease in early infancy or childhood is at all necessary to prove the question of heredity. Students of heredity are aware of the fact that certain dominant characteristics do not manifest themselves until after puberty or even middle-age. The color, quality and quantity of hair, the refractive index of the ocular lens, the tendency to hypertension and other organic diseases, and the gait of the individual are all reminders that family characteristics often do not appear until after early life.

At the University of Minnesota Hospitals histories taken on patients with multiple polyposis and cancer of the rectum and colon often bring out the fact that the disease has appeared in other members of the same or related families. McKenny has traced the disease through 3 generations. Our investigation has not been extensive, but our case histories show that the disease may appear in one generation, skip the second, only to reappear in the third. It is our belief that once the disease is found in an individual, all members of his family should be examined both with the x-ray and the sigmoidoscope for the possible presence of polyps. The importance of taking a careful family history cannot be overestimated. There have been several occasions in recent years where the initial history failed to show the presence of the disease in other members of the immediate family or in the relatives. Subsequent questioning of the patient, however, by those of us who were particularly interested in polypoid disease brought out a history of the disease in other close relatives.

Histology of Polyps

The small millet-sized lesions which occur so frequently in the bowel, consist chiefly of simple hyperplasia of the mucous membrane. The hyperplasia may or may not be accompanied by inflammation. At times there is an accompanying lymphatic hyperplasia of the submucosa. The tubules of the glandular structure may be somewhat enlarged, increased in length or have some increased tendency to branch, but the staining properties of the cells are normally preserved as is the relationship between the tubules and the basement membrane.

The adenomatous polyp is a larger lesion which may be sessile or pedunculated. The pedicles probably arise, or when present, become elongated because of the peristaltic action of the bowel in its attempt to propel the intestinal content. The pedicle consists of a stroma of normal connective tissue covered by a layer of columnar epithelium. The distal part of the polyp may be lobulated but while still benign the epithelium preserves its normal arrangement of cells, tubules and basement membrane.

Another type of polyp occasionally found in the rectum is the so-called villous papilloma. The tumor is soft and the color resembles that of normal mucosa. There is usually a strap-like stalk covered by long, arborescent villi. There is a rich development of goblet cells in the structure which give rise to the secretion of large amounts of mucous. The tendency to carcinomatous degeneration is marked in this type of tumor.

Symptoms

The symptoms which are present in an individual who has one or more rectal or colonic polyps may vary from none at all to multiple and complicated syndromes. The point must be stressed that polyps per se do not cause symptoms. Symptoms associated with polyps are due primarily to the complications of the disease. The size of the polypi, however, their number, location and stage of development may determine the symptoms which are produced. The early symptoms are mild with a little disturbance to the patient that [illegible] think it necessary to consult [illegible]. Increased frequency and [illegible] together with se-

casional bleeding are common symptoms. Bleeding, however, may not occur until late in the disease, and its absence must not lead one to believe that the disease cannot be present. Abdominal pain may or may not be associated with the condition. Patients often attribute their symptoms to a colitis because of the frequency of defecation and the presence of some blood or mucus. When bleeding is present, the blood is bright red in color and is usually found mixed with or on the surface of the stool rather than appearing at the end of defecation. If the polyps are large enough to cause partial obstruction, constipation and the feeling of fullness and pressure in the bowel may be noted. In some cases the tumor, if attached by a long pedicle may protrude from the anus.

As an example of how the symptoms of a case of multiple polyposis may lead one astray, the following case history is presented.

[redacted], a white male age 26, was admitted here on 8-31-40. He was suffering from severe diarrhea, partial bowel obstruction and marked cachexia. On 9-24-40 an emergency operation was performed to relieve the obstruction and the patient expired on 9-28-40. The history of this patient reveals that he had sought medical care 5 years previously on account of bloody stools. A diagnosis of bleeding duodenal ulcer had been made, and the patient had been treated accordingly for several years. At a later date a change of physicians brought about a change of diagnosis to chronic ulcerative colitis, for which he had since been treated. X-ray studies after admission revealed the presence of multiple polyposis. The autopsy revealed a most extensive polyposis of the rectum and colon with malignant degeneration of several of the polypoid tumors. The polyps extended to within 1 cm. of the ano-rectal junction and the diagnosis could have been made with a simple anoscope. It is interesting further to note that this man's mother died of multiple polyposis and that another member of the family died of carcinoma of the col[redacted]

Diagnosis

As has been previously stated, polyps do not of themselves cause symptoms. It is only when complications are present that symptoms arise. The usual complications may be listed as follows:

1. Bleeding
2. Obstruction--partial or complete
3. Infection and inflammatory reaction about the polyp.
4. Protrusion
5. Malignant degeneration with metastases.

The presence of polypi in the rectum or colon should be suspected and must be excluded in any patient whose history suggests evidence of gastro-intestinal disease. It is our policy to do a proctoscopic examination before x-ray studies of the bowel are carried out. Barium in the bowel is quite difficult to remove satisfactorily and its presence makes proctoscopic examination more difficult.

After the proctoscopic examination a barium enema may be given and the x-ray examination made. This procedure should be completed by air contrast films after the evacuation of the barium.

X-ray studies of the rectum and recto-sigmoid region are in themselves quite unsatisfactory because of the bony structures surrounding the bowel and also because of the flexures in the bowel. This area is best examined by the proctoscope. Above the sigmoidal area, however, we must rely on x-ray studies for our conclusions. The combination of both procedures is, therefore, essential for the diagnosis of polyposis.

Anemia

One should never rely on the presence of anemia to establish a diagnosis of polyps. Studies conducted at the Mayo Clinic showed [redacted] only 1 out of 10 persons w[redacted]s had a demonstrable anemia

The following case history illustrates the value of combined x-ray and proctoscopic examination.

[illegible], a white male age 54, was first seen in the University of Minnesota Hospitals Out-patient Department on July 28, 1941. He began to have rectal bleeding in February of this year. He consulted his physician who performed a hemorroidectomy to relieve the bleeding. At the time of operation the surgeon became suspicious of a lesion higher in the bowel and referred the patient to a proctologist. When examined by the proctologist, several polyps were found in the rectum and a carcinoma was seen at 20 cm. When he was examined in this clinic the polyps were visualized, but it was impossible to demonstrate a carcinoma up to 25 cm. from the pectinate line. X-rays of the colon, however, revealed the tumor in the lower sigmoid. After several examinations the carcinoma which had previously been seen at 20 cm. was now found to be situated 28 cm. above the pectinate line. This unusual circumstance is explained on the basis of the lesion telescoping to a lower position at the time of the first examination. On September 16, 1941 the polyps in the rectum were destroyed by fulguration and on September 23, 1941 a segmental resection of the sigmoid was performed with preservation of bowel continuity.

Malignant Degeneration Tendencies of Polyps

It has been suggested several times in this discussion that malignant degeneration of rectal and colonic polypi is a frequent complication. Many investigators in this field have come to similar conclusions during the past few decades.

In 1925 Lockhart-Mummery said, "Malignant disease secondary to adenomatosis is characterized by its early age of onset and the fact that more than one primary focus of cancer may be present. Among the general population it is rare for cancer of the rectum to develop before 40 to 50, but in families affected by adenomatosis it often begins to develop at 30 to 40 or earlier. The age of death from cancer in adenomatosis families is also younger by about 20 years than the average age of death from the disease in the general population. As a general rule in families affected by adenomatosis the tumors begin to develop at about the 20th year of life; malignant changes may be expected in about 15 years and untreated cases die from cancer in the early 40's.

Vernon David in 1940 published the results of his studies in which he demonstrated the gradual transition from hyperplasia to adenoma formation, showing a simple differentiated structure proceeding to a less orderly and less differentiated epithelial growth and finally to actual carcinomatous invasion.

W. J. Martin in 1939, after reviewing a series of 1500 consecutive proctoscopic examinations, reported that he found an incidence of 4.2%, or 63 cases, of polypoid lesions in the rectum and colon. In the same series 27 of these 63 cases had carcinoma. The highest incidence of polypi occurred in the age group of 40 to 50, whereas the highest incidence of carcinoma occurred in the age group of 50 to 60. He concluded that a person who had polyps in the rectum and colon would, if he lived 10 years, probably develop carcinoma.

Rankin and Fitzgibbon in 1931 found that in 13 cases of polyposis of the colon, in either generalized or localized form, there appeared 24 carcinomata. Only 2 cases were free from malignant change.

Buie and Brust have reported 4 cases of untreated polyps in which the patients, when re-examined, were found to have carcinoma superimposed on the site of the previously discovered adenoma. The periods between the first and subsequent examinations in these 4 cases were 3, 8, 16, and 19 years, respectively.

From the accumulated evidence it is quite certain, therefore, that the burden of proof is upon anyone who wishes to prove that rectal or colonic polypi will not, if left untreated, undergo malignant degeneration.

Mention should be made at this time of the recent work of Bargen, Dixon and Cramer relative to the formation of new polypi with subsequent development of

malignancy in the bowel in individuals who had previously had small carcinomata removed surgically. They demonstrated the association of large lymph follicles in the submucosa with polyps of the colon and in this same report the belief was expressed that these lymph follicles may play an important part in the causation of certain types of polypoid hyperplasia. They were able to demonstrate these changes in the tissues surrounding carcinoma and believed that this might be a factor responsible for the recurrence of some carcinomata even after the original growths are completely eradicated. The authors state also that "potentially malignant areas develop in the bowel following subclinical types of inflammation. The actual development of malignancy in the potentially malignant region begins in those cells which have become isolated from the remainder of the epithelial layer, either by burial in the submucosa or by segregation as polyps.

The following case history reveals the story of a benign polyp undergoing malignant degeneration while the patient was being treated in this hospital.

., a white male, age 59, was first seen in the University of Minnesota Hospitals Out-patient Department on July 7, 1938. At that time a proctoscopic examination revealed the presence of a polyp in the rectum and one in the lower sigmoid. Biopsy examination was made at that time, but the patient was advised to enter the hospital for destruction of the polyps. For some reason he was not seen again until March 3, 1941 when he came for treatment. The rectal polyp was removed, and the sigmoidal polyp was fulgurated after sections were obtained. The biopsy report showed the polyps to be benign. On June 12, 1941 he was readmitted for further fulguration of the sigmoidal polyp. A biopsy of the remaining portion of this polyp showed it to be an adenocarcinoma. This man has since had a segmental resection of the portion of the sigmoid bearing the tumor with an end to end anastamosis of the bowel. Normal bowel function has been preserved.

Treatment

The treatment of polyps in the rectum and colon presents a complicated problem. Isolated benign lesions are usually removed by excision or fulguration. Multiple polyposis and polyps which have already undergone malignant degeneration must be treated by removal of all or part of the organ involved. The following are the methods of treatment at our disposal:

1. Ligation and excision of pedunculated polyps.
2. Electro-coagulation or fulguration through the proctoscope or sigmoidoscope.
3. Electro-coagulation or fulguration of polyps through a sigmoidoscope introduced through a colostomy stoma.
4. Excision of a polyp through an incision in the colon.
5. Segmental resection of the colon.
6. Complete colectomy.
7. X-ray and radium.

1. Ligation and excision of pedunculated polyps in the rectum is a satisfactory method providing the tumor is entirely benign. The polyp may be apparently benign but a few malignant cells may be found at the attachment of the pedicle to the mucosa, so that this method may give unsatisfactory results.

2. Electro-coagulation or fulguration of polyps in the rectum and sigmoid is a satisfactory method of dealing with isolated polyps. Because of the technical hazards involved the procedure must be carried out by trained endoscopists. Perforation of the bowel by too thorough treatment may lead to a generalized peritonitis which is often fatal or to a fistula between the rectum and a neighboring organ. This complication is, of course, a grave one. The method, however, is particularly advantageous in trained hands since there is little loss of time or invalidism. Biopsies can be obtained readily, and treatment can be repeated easily whenever necessary. When polyps or other

tumors are located on the posterior wall of the rectum and below the peritoneal reflection, a most thorough destruction of the tumor and surrounding tissues can be carried out with little risk. This procedure is at times the treatment of choice for small carcinomas situated on the posterior wall of the rectum. The proximity to the bladder, uterus, vagina, or prostate, seminal vesicles and urethra preclude the possibility of deep fulguration anteriorly. One of the complications which must be kept in mind following fulguration in the rectum is the possibility of a delayed hemorrhage which may occur 5 to 10 days after the operation at the time that the slough loosens and comes away.

3. Isolated polyps which are located in and above the sigmoid colon can often be fulgurated through a sigmoidoscope introduced through colostomy stomata.

It is entirely satisfactory method where the polyps are accessible and where the operator has had considerable experience in handling fulgurating currents in the colon. The increased danger of perforation of the colon in its thinner portions must be appreciated. Before subjecting a patient to one or more colostomy openings for this procedure, however, we must try every method to prove that the patient is not suffering from a true multiple polyposis.

4. Pedunculated polyps which are located above the rectosigmoid junction and which are of considerable size are best removed by methods other than fulguration.

Since hemorrhage following fulguration at this level is difficult to control and because perforation of the gut is easily done, it is probably best to remove polyps in this region by sigmoidotomy.

After palpating the entire colon to exclude the possibility of other polyps, a longitudinal incision is made through one of the longitudinal bands. The polyp is removed at its base and bleeding controlled. If there is any suspicion of carcinoma either by palpation or by histologic examination, or by frozen section, the wound in the bowel should be closed and segmental resection with end to end anastamosis performed.

5. Segmental resection of the colon for multiple polyps or for malignant polyps is a well established procedure which has been carried out at this hospital on many occasions with excellent results. It is without question the procedure of choice for an isolated malignant lesion of the colon because of the fact that continuity of the bowel is not lost.

6. When one is dealing with a case of multiple polyposis with or without malignant degeneration of one or more of the polyps, colectomy is the procedure of choice.

Because of the high incidence of carcinoma in this disease and because of the large number of persons who develop polyposis at an early age both the physician and the patient are confronted with serious decisions. The decision to remove the colon, however, must be made if one is to avoid the possibility of subsequent cancer of the bowel. The operation is carried out either in one stage or in multiple stages. Where polyps are absent in the rectum or when they are located so that they can be fulgurated in the rectum, an ileo-sigmoidostomy may be performed and the rectum thereby preserved.

7. The use of X-ray and radium for the treatment of polyps in the rectum and colon has not given much satisfaction and is not employed in many clinics at this time.

Table I

A STUDY OF THE THICKNESS OF TWENTY-FIVE COLONS REMOVED AT AUTOPSY

	Average Weight in Grams of Portion of Colon Measuring 3 x 2½ Cm.	Transmission of Light, in Foot Candles, as Measured by Photo-electric Cell*
Rectum	2.139	39.17
Sigmoid	1.888	63.64
Descending	1.437	91.40
Splenic flexure	1.260	92.92
Transverse	1.291	93.68
Hepatic flexure	1.139	98.88
Ascending	1.214	90.28
Cecum	1.166	94.96

*Photoelectric cell readings were made by transmitting the illumination from 100 watt lamp through the tissue from a distance of 1 cm.

From SURGERY, 6, Dec. 1939. Polypoid Disease of the Colon, Raymond F. Hodin, Red Wing, Minnesota.

One of the main reasons for presenting this subject has been to emphasize the importance of well conducted procto-sigmoidoscopic examinations. We believe that all patients with symptoms referable to disturbances of the gastro-intestinal tract should be examined with the proctoscope. We believe further that patients who suffer from obscure anemias, unexplained fever and loss of weight should also have the benefit of an endoscopic examination of the lower bowel.

Since uncomplicated polypi do not cause symptoms, the earliest lesions are picked up on proctoscopic examination. If they are removed by surgical or electro-surgical means, the patient is saved much in the way of more radical procedures and is less likely to develop cancer. This much is certain; the patient who is aware of the presence of polyps in his colon will in most instances be less likely to develop cancer because he will probably undergo the necessary treatment from time to time.

The ease with which a procto-sigmoidoscopic examination can be done on the average patient is further reason for popularizing the procedure. We cannot ignore the technical difficulties and the hazards which may be encountered by the untrained examiner but by sufficient training any physician can become adept in doing the examination. It must be pointed out, however, that the mere introduction of a scope up to its hilt is not sufficient for a thorough examination. The examiner must be able to search within the folds of mucus membrane, on the surfaces of the Valves of Houston and on the posterior, anterior and lateral walls of the entire rectal and recto-sigmoidal area.

Biopsy specimens can be taken of the larger polyps at the time of the examination, but it is probably a better practice to defer this procedure until the patient is admitted to the hospital as severe hemorrhage may follow section for a biopsy specimen.

At the University of Minnesota Hospitals Out-Patient Clinic, biopsy specimens are taken at the time of examination. [illegible]

instructed to report at once if bleeding should occur.

In a recent editorial in "Surgery, Gynecology and Obstetrics" Nesselrod made this statement. "Mistaken interpretation of proctoscopic findings can be excused, but the continued and widespread failure on the part of many otherwise careful and competent physicians to avail themselves of proctoscopy in the study of their patients is an unpardonable error of omission."

Impressions

1. Heredity plays an important role in the development of polyps in the rectum and colon.

2. Polyps in the rectum or colon may not cause symptoms.

3. Polyps of the rectum and colon are definitely pre-malignant lesions.

4. Procto-sigmoidoscopic and X-ray examinations should be done on all patients who are suspected of harboring polyps in the large bowel.

5. Early removal of histologically benign polyps is the best method at our disposal to prevent the occurrence of cancer in the rectum or colon.

6. Colectomy is the procedure of choice in Multiple Polyposis.

7. Other methods of treatmwnt are outlined.

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VII. GOSSIP

The Minnesota Medical Alumni Association Meeting is being held today. The members of the class of 1921 are back for their reunion. In those days following the war there was considerable irregularity in class lists. The 1921 list as published in the Minnesota Alumni Directory is of interest. Of the 80 living members 52 stayed in Minnesota and 28 practice elsewhere as follows:

California	7	Nebraska	1
British Columbia	1	New York	2
District of Columbia	1	Oklahoma	1
Iowa	1	Oregon	3
Massachusetts	1	Virginia	1
Michigan	1	Washington	3
Montana	2	Wisconsin	3

Note how few went East.

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Seven are deceased: (Date of Death)

Hjalmar M. Berge	4-10-33	Charles C. Gault, Owatonna	7-25-31
Harold S. Boquist, Minneapolis	6-12-34	Benjamin J. Martin	7- -29
Alberg E. Flagstad, Minneapolis	1-26-32	Lloyd E. McFarlane, Kansas	9-26-35
		Rolf F. Nannestad	5-2-25

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They stayed in Minnesota:

Name	Specialty	Address
Carl G. Arvidson	Consultant, Penal Inst.	Minneapolis
Walter G. Benjamin	General Practice	Pipestone
Joseph F. Bicek	Obstetrics & Gynecology	St. Paul
Henry H. Blaustone	Surgery	Minneapolis
Paul G. Boman	Internal Medicine	Duluth
Ruth E. Boynton	Public Health	Minneapolis
W. F. Cantwell	Surgery	International Falls
Harry W. Christianson	Proctology	Minneapolis
Roger S. Countryman	Obstetrics & Gynecology	St. Paul
Earl R. Crow	Ophthalmology	Arlington
John M. Culligan	Surgery	St. Paul
George C. Doyle	Dermatology	Duluth

They stayed in Minnesota (Cont.):

Name	Specialty	Address
Lawrence O. Doyle		Minneapolis
Della G. Drips	Gynecology	Rochester
Oscar J. Engstrand		Minneapolis
Raymond Eppard		Cloquet
Mrs. Lillian M. Fink (Lillian Mayer)		Minneapolis
Walter H. Fink	Ophthalmology	Minneapolis
W. K. Foster		Minneapolis
L. Haynes Fowler	Surgery	Minneapolis
M. P. Gerber		Brainerd
Mrs. Arni B. Gislason (Solveig S. Thordarson)		New Ulm
Nels A. Gunderson		Minneapolis
Myron O. Henry	Orthopedics	Minneapolis
Frank R. Hirshfield		Minneapolis
Max H. Hoffman	Internal Medicine	St. Paul
Joel C. Hultkrans		Minneapolis
Herman Juergens		Belle Plaine
Arthur H. Langhoff		Glencoe
LeRoy J. Larson		Bagley
Arthur M. Lundholm		St. Paul
John L. Mills		Winnebago
George A. Miners		Deer River
Herman J. Moersch	Neuro-psychiatry	Rochester
R. Theodore Muller	Surgery	St. Paul
Henry Norrgard		Milaca
Arthur H. Pedersen		St. Paul
Willard C. Peterson		Minneapolis
Erling S. Platou	Pediatrics	Minneapolis
E. A. Regnier	Surgery	Minneapolis
L. F. Richdorf	Pediatrics	Minneapolis
Burton Rosenholtz		St. Paul
Peter S. Rudie	Surgery	Duluth
Mark E. Ryan		St. Paul
Clifford G. Salt		Minneapolis
Bernard H. Simons		Chaska
David M. Siperstein	Pediatrics	Minneapolis
Harold C. Strutte		Windom
Raymond M. Sullivan		Minneapolis
A. E. Vik		Minneapolis
Ralph W. Warnock	Internal Medicine	St. Paul
Wilford F. Widon		Minneapolis

They went away:

Name	Specialty	Address
Lucius F. Badger	Public Health	Washington, D.C.
Henry A. Barner		Bremerton, Washington
C. W. Brunkow	Surgery	Portland, Oregon
Asa G. Churchill		Coronado, California
Verne C. Crowl	Pediatrics	Huntington Park, Calif.
Harry A. Daniels	Internal Medicine	Oklahoma City, Oklahoma
Helen M. Deane	Student Health Service	Northampton, Mass.
Albert Cole Feaman	Chest	Seattle, Washington
Charles F. Flocken		Pasadena, California
Frances A. Ford	Radiology	Detroit, Michigan
Allen R. Foss	Internal Medicine	Missoula, Montana
Verne D. Gearey		Westport, Oregon
A. Edward Gourdean		Portland, Oregon
Robert Gutsell		Ithaca, New York
Earl C. Hall		Laurel, Montana
Arthur C. Johnson	Surgery	Omaha, Nebraska
David H. Johnson	Obstetrics	Tacoma, Washington
Ellworth Johnson	Radiology	Winchester, Virginia
Hugh T. Jones	Orthopedics	Los Angeles, California
Frank C. Kinsman		Eau Claire, Wisconsin
Rose Kriz Hettwer		Milwaukee, Wisconsin
George M. Landrock	Proctology	San Francisco, California
Ewing C. McBeath	Dentistry	New York, N. Y.
H. Edward Morrison	Public Health, Psychiatry	Pasadena, California
Leon A. Steffens	Ophthalmology	Dubuque, Iowa
George F. Strong		Vancouver, B. C.
Henry G. Zanger	Surgery	San Jose, California
Lloyd H. Ziegler	Neuro-psychiatry	Wauwatosa, Wisconsin

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Of the group that stayed in Minnesota, 23 of the 52 are in Minneapolis, 10 in St. Paul, 3 in Duluth, 2 in Rochester, and 14 are distributed as follows:

Arlington	Glencoe
Bagley	International Falls
Brainerd	Milaca
Chaska	Pipestone
Cloquet	Windom
Belle Plaine	Winnebago
Deer River	New Ulm

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In Minnesota the specialties are:

Dermatology	1	Neuropsychiatry	1
Internal Medicine	3	Pediatrics	3
Obstetrics and Gynecology	3	Proctology	1
Ophthalmology	1	Public Health	1
Orthopedics	1	Surgery	1

As to specialties the group who practice elsewhere indicate the following:

Dentistry	1	Pediatrics	1
Internal Medicine	3	Proctology	1
Obstetrics	1	Radiology	2
Ophthalmology	1	Surgery	3
Orthopedics	1	Public Health	1
Neuropsychiatry	2	Students Health	1

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Names are one thing. People are another. To each member of the 1921 class a hearty welcome from the 1941 group at the school. The rest of us thank you for what you have accomplished -- it means a great deal to the University of Minnesota and the rest of the alumni.