Dr. Gerdes

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

Autopsies

Volume VIII | Thursday, May 6, 1937 | Number 27

STAFF MEETING BULLETIN
HOSPITALS OF THE
UNIVERSITY OF MINNESOTA

Volume VIII — Thursday, May 6, 1937 — Number 27

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during the school year, October to May, inclusive.

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William A. O'Brien, M.D.

I. LAST WEEK

Date: April 29, 1937

Place: Nurses' Hall
Recreation Room

Time: 12:15 to 1:20

Program: Movie: Romantic Mexico

Abstract:

Prontosil and Related Compounds (Sulfanilimide)

Case Reports: Two

Discussion: R. N. Bieter
C. Watson
R. Johnson
R. E. Mattison
M. Wetherby

II. MOVIE

Title: Philippine Fantasy

Released by: Fox Movietone Corp.

III. CORRECTION

Sulfanilamide - instead of Sulfanilimide, as given in last week's Bulletin.

IV. ABSTRACT

AUTOPSIES

R. W. Koucky

The division of autopsies by services, as given in Table I, is only an approximation. It is impossible to accurately place credit for each autopsy. For example, autopsies listed under "Pediatrics" represent cases handled not only by that service but also by surgery, orthopedics, obstetrics, nose and throat, and others. Similarly, neurological patients are also handled by medicine and surgery. It would require extensive search to determine on which service each patient died. There is no way of determining who obtained the permission or whose responsibility it may have been at the time. Only one thing is obvious from the chart, i.e., all services handle autopsies approximately the same.

TABLE I

Service	1932	1933	1934	1935	1936	Total Autopsies	Total Deaths	% Of Autopsies	Remarks
Medicine	70	71	97	108	91	437	612	71.4	
Pediatrics	73	80	68	66	70	357	512	70.0	Includes pediatrics of all services and nursery.
Surgery	48	46	47	46	62	249	335	74.3	
Tumor Surgery	35	48	36	37	44	200	239	83.7	Erroneous - includes some neurology & urology.
Gynecology & Tumor Gyn.	14	8	16	7	6	51	72	71.0	
Obstetrics	4	3	6	2	2	17	20	85.0	
Orthopedics	0	5	4	1	1	11	9	?	Note the obvious discrepancy.
Dermatology	4	1	3	1	2	11	15	74.0	
Neurology	14	11	15	19	18	27	101	76.0	Many cases inseparable from or included with other services.
Urology	8	11	10	11	12	52	?	?	Exclusive of malignancy.
Health Service	1	1	1	1	1	5	8	62.0	
Eye	0	0	0	1	1	2	3	65.0	
Ear, Nose, Throat	4	3	3	5	5	20	32	63.0	
TOTAL	275	288	306	304	315	1,488	2,058	72.3	

Table II is an attempt to classify the primary disease found at autopsy into a few general groups. "Infection includes all specific and nonspecific bacterial diseases not otherwise excluded. Lobar pneumonia should have been separated from the general group. There has been a very definite increase in this type of autopsy, possibly due to the interest stimulated by various staff men. "Vascular occlusions and accidents" include coronary arterial disease, as well as cerebral hemorrhages, and gangrene. "Uremia" does not include the cases of terminal or secondary elevations of blood nitrogen. The group is made up almost entirely of primary kidney disease or cases of hypertension dying of uremia. Several of the cases included under "Pregnancy," "Biliary Disease," and others came here because of complications but the death is nevertheless listed under the primary cause. Kidney stones are not listed as a separate entity because of the difficulty in determining whether or not they represent the primary disease.

TABLE II

	5-Year Average	1932	1933	1934	1935	1936
Tumor	75	66	71	79	79	79
Infections	50	33	59	51	51	58
Premature, Stillborn, Birth Injuries	19	26	21	14	18	15
Infectious Heart Disease	14	8	16	16	12	18
Noninfectious Heart Disease	13	9	11	17	14	16
Congenital diseases	13	15	15	16	8	13
Vascular Occlusions & Accidents	12	10	10	6	23	14
Accidents	11	13	7	9	11	14
Leukemia	10	9	9	10	10	10
Biliary Disease	8	9	5	8	8	10
Tuberculosis (all organs)	8	5	8	10	5	10
Appendicitis	7	8	8	10	6	1
Uremia	7	8	8	6	6	5
Peptic Ulcer	7	4	7	5	6	12
Prostate (non-malignant)	7	3	6	11	6	7
Miscellaneous Neurological	5	6	4	8	1	7
Hodgkin's Disease	4	6	3	5	4	2
Intestinal Obstruction (benign)	4	6	4	2	5	5
Pregnancy	3	5	2	4	2	3
Thyroid	3	4	1	1	3	6
Blood Diseases (Miscellaneous)	3	3	3	5	5	1
Liver	2	0	2	4	2	3
Miscellaneous	-	19	8	9	13	6

The following shows the average percentage of the total over the 5-year period:

Tumors		25%
Infections		17
Heart and vascular disease		13
Infectious	5%	
Noninfectious	4	
Vascular disease	4	
Blood disease (Leukemia, Hodgkin's, Miscellaneous)		6
Congenital anomalies		4
Accidents		3.7

(All others less than 3% each)

The first three groups make up 55% of the total.

1. The Pathologist's Side of the Autopsy Question

A. Technique of the Autopsy

Familiarity with the technique of the autopsy proves of value to the physician in case a discussion of the matter is brought up by the relatives. All skin incisions are placed so that they are invisible under the usual circumstances of dress for burial. It should be understood that incisions upon the exposed parts of the body are not included in the customary permission by reason of common practice. Therefore if postmortem examination of the hand or face is desired, special

permission must be obtained.

The treatment of the blood vessels has become standardized. The aortic arch is left intact to give access to the undisturbed carotid and subclavian arteries. The common iliac arteries are exposed but not injured. These five arteries as they leave the body cavity allow for quick and efficient embalming. In children and young individuals, the pelvic organs can be opened in place without removal, thus preserving the circulation to the gluteal areas. Any variation from this plan is undesirable. Dissection of the structures in the extremities or neck is not to be requested of the pathologist unless some worthy purpose is to be accomplished. If good will toward autopsies is to be maintained, the motto of the physician and pathologist must be "Preserve the Blood Vessels."

Examination of the head is a part of the postmortem examination. Undue liberties should not be taken. Head examinations should not be done when obviously unnecessary. They should not be done when it is known that the relatives are undecided or not in favor of the procedure. If relatives readily consent to the autopsy, then the examination of the head can be done. If it has been difficult to obtain permission and no mention has been made of a head examination in the discussion, then this procedure should be omitted.

Experimental incisions or procedures not a part of the routine examinations are flatly discouraged.

B. Relations of Physician and Pathologist

Too much emphasis cannot be placed upon the following:

The liability for any misdemeanor concerning postmortem examinations rests on both the attending physician and the pathologist. The physician has no right to incriminate the pathologist by withholding details of the permission. When oral permission is obtained for a "look into the abdomen" and signature is obtained for "postmortem examination," a fraudulent contract has been executed. If the pathologist is not informed, he also is made liable for fraud when he performs a complete autopsy. Permissions for a "look into the abdomen" and for "an incision so big" (indicating three inches) should be carried out as represented to the relatives. The embalmer cannot be expected to cover the deceit. He himself would much prefer to avoid trouble but competitive practices are extremely keen and usually the fraud will be discovered.

C. Information to the Referring Physician

Unfortunately, the stenographic help available for typing the autopsy records is at present insufficient and copies are not available until weeks later. The service shown the referring physician can be increased if the essential autopsy findings are given to him in the attending physician's letter concerning the final outcome of the case.

D. Arrangements for the Autopsy

In this hospital, a large number of patients are seen by two or more departments. It has become the duty of the intern or fellow to notify his associates in his own department and all the consultants of the fact that an autopsy is to be held. He is to make arrangements for a time suitable to these groups. When a time has been chosen, the pathologist is to be called and the appointment made with him. In the past, autopsies were postponed indefinitely because of the tardiness of the staff men. More recently, the examinations have been started at the appointed time, regardless of anyone's tardiness, and no serious consequence has resulted.

E. Emergency Examinations

Occasionally a postmortem examination must be done in the evening or night. Bodies are sometimes shipped on an early morning train or the people have made such arrangements with the

embalmer that he is placed in an unfavorable position if he cannot obtain the body. Autopsies on Jewish patients cannot be delayed because of the time factor in their burial customs.

Except in cases of such legitimate reasons, autopsies should not be requested in the evening or night.

2. The Embalmer's Autopsy Problem

A. Embalming after Autopsy

An average postmortem examination done in the accepted manner offers no difficulty to the embalmer. Many prefer to work with "posted" bodies; only a few object. Certain departures from the average autopsy cause trouble for all embalmers. Partial autopsies are universally disliked. When the abdominal viscera are removed, leaving the complicated circulation of the thorax undisturbed or vice versa, there is no good source for the injection of the fluid. Many embalmers complete the removal of organs by themselves. This type of autopsy is to be discouraged; permission for a complete examination should be urged on the basis of better embalming, or the examination should be limited to inspection of the viscera with removal of organs only when necessary. The arteries to these removed organs should be ligated.

Incisions on the posterior surface of the body are undesirable because of the leakage of fluid into the casket. Spinal cord examinations should be done from the front when possible. Embalmers can by additional work seal these posterior cuts effectively if it is necessary or desirable to work from the back.

The face and neck after death should not be handled. Blows and vigorous rubbing cause discolorations. When the scalp is elevated, it should not be stripped forward beyond the hair line.

B. Papers

The legal regulation of the handling of the dead necessarily must be strict. The embalmer must ridigly adhere to these regulations. Physicians should become familiar with the regulations in order to understand the embalmer's problems and givehim reasonable cooperation. There are two legal forms with which the physician should be especially familiar--the permit for transportation and the permit for burial. The proper authorities issue these permits only during certain business hours, after satisfaction that there has been no accidental or criminal act and after information is available as to possible communicability of the final illness. It is obvious, therefore, that the death certificate must be signed as quickly as possible so that the embalmer's permits can be obtained. In all deaths in any way related to accidental causes or to criminal acts, the coroner's office must be notified by the physician. In these cases, no postmortem examination can be done and no permits issued without the approval of the coroner.

The greatest cause of embalmer's dissatisfaction is the delay in obtaining a properly signed death certificate. Often the embalmer has only a short time to obtain his permits before the Health Offices close for the day. Many hire their conveyance ("the rig") by the hour and the delay causes unnecessary expense. In this hospital, many embalmers come from a distance and still have to drive home and long waits simply for a signature are very trying.

The idea of forcing the giving of an autopsy permission by deliberatdy withholding the signature to the death certificate is ridiculous. The validity of such a contract made by coercion is questionable. If communicable disease is not present, embalmers can transport bodies within certain distances without a transportation permit. When an embalmer possesses the required statement from the relatives for delivery of the body to him, the institution cannot withhold that body. The withholding of the signature to the death certificate, therefore, is entirely worthless and a source of bitter dissatisfaction.

C. Delays in the delivery of the body sometimes occur due to overcrowding. Complaints have been made that sometimes it takes "hours" to obtain an orderly who can get the clothes of the deceased and perform the other duties attending delivery of the body.

D. The embalmer should never be asked to share liabilities resulting from any irregularity in the permission for autopsy.

E. Summary

The embalmers have no autopsy problem if (1) the permissions are bona fide, (2) the autopsy is done in reasonable time, (3) the death certificate is signed immediately so that the body can be delivered promptly after the examination, (4) the autopsy is done according to the accepted method, and (5) there is no forcing of relatives by delaying to sign the death certificate when the autopsy has been refused.

3. The Physician's Side of the Autopsy Problem

The following paragraphs were obtained by interviews with various staff men.

A. Private and Charity Cases

Statistics in most (not all) private hospitals show a much lower percentage of autopsies than in the charity institutions. As a general rule, physicians do not want "high pressure" tactics employed on their private cases. These patients are not to be coerced or upset. Nevertheless, a few private hospitals maintain an autopsy percentage higher than the majority of charity hospitals.

The following points are taken from an interview with an intern from one of these private hospitals: (1) Relatives will give permission for autopsy only when they are well satisfied with the service obtained. (2) When a death is impending, the relatives are prepared for the question of autopsy permission by a suitable "build-up." (3) When death occurs, the nurse, intern and staff man, all cooperate and supplement each other. (4) Autopsies are almost a routine process and the lay people except them to be done, i.e. it has become the fashion.

B. Interference from Undertakers

One staff man felt that there were still undertakers who deliberately advise relatives against giving an autopsy permission. Sometimes the physician is placed in an unfavorable position by statements to relatives such as the following: "It is fortunate you didn't call a different embalmer because the autopsy certainly made this case a difficult job."

C. Obtaining permission for Autopsy before Death

Certain interns make a practice of obtaining the permission before death--at the time consent is obtained for treatments or operation. These interns state that the relatives are emotionally more stable at this time and are in a better position to appreciate the logic of the physician's "sales talk."

D. Who Can Sign the Permission?

The closest of kin must sign the permission. (Last year one intern interpreted "closest" in the geographic sense!) A spouse supersedes a parent, a parent supersedes the progeny; siblings are of equal rank (but the eldest is preferable and if several are available, their signatures can also be affixed). The sequence thereafter becomes complicated: uncles and aunts; cousins; grandchildren, etc. Usually these conflicts do not arise.

The signer must be able to make a contract, i.e. be of legal age and of

sound mind. The inclusion under the last group often has been very liberal: senility, critical illness, incapacitating illness, etc. Such inclusions are dangerous and discretion must be used. The signer should also make a statement confirming the reason why he supersedes the closer of kin.

Absence, inaccessibility or separation of husband and wife do not change the legal status.

Most private hospitals employ a legal advisor. When in doubt, the hospital authorities will be glad to consult him.

E. Too Many Relatives

One intern emphasizes that discussion regarding granting the permission should not be opened before an assembly of relatives. The responsible party should be taken aside and the matter discussed with them alone. It should be pointed out that often many advisors are worse than none and that ultimately the decision and responsibility falls on them alone.

F. The Religious Angle

From another interview, the suggestion was obtained that when the question of conformity to religious faith arises that the relative call his minister, priest or rabbi for consultation. Invariably, these theologians will recommend an autopsy. (In this group can be placed the majority of undertakers. Reference to the embalmer is an excellent plan.)

G. Embalmers Obtaining Autopsies

In line with the above, one of the people at the "information desk" offers the following: In cases where the responsible party cannot be easily reached (no telephone, etc.) instead of making various efforts to contact these people, get in touch with the undertaker. It is to his advantage to have no delay and he will gladly contact the people, obtain a permission and bring it with him when he comes for the body. He can telephone the details of the permission and the body can be ready when he arrives.

H. Autopsies on Bodies with a Permission for Disposal

One staff man requested clarification of "when an autopsy can be done" when relatives have requested disposal of the body. A body is the "property" of the closest kin. When this individual signs a disposal permission, they give up their rights to the body and therefore cannot any longer give permission for autopsy. The body becomes the property of the state (of the Department of Anatomy if they so desire). Permission for autopsy must be obtained from this department. Usually there is an excess of newborns in the department and in case of these it has been assumed that the permission will be granted. This is the only exception.

I. Obtaining Permission
(Obtained by talking to staff men)

Interview No. 1

An autopsy permission is obtainable in every case if the responsible relative is available. The physician who himself believes in autopsies will obtain more than the one who is prejudiced against them or asks for them because of necessity. The individual who had the closest contact with the relative and the one whom they trusted most will obtain the permission. The request for the permission must be lead up to by careful premortem discussions. All that should be left when death occurs is the formality of signing the paper.

Five types of people are encountered:

(1) those who request an examination,
(2) those who approve of the procedure,
(3) those who are indifferent or un-

familiar,

(4) those who oppose the idea with manifestation of deep emotion,

(5) those who oppose the idea in a cold, unemotional manner.

The first three are easily handled. The fourth will agree to the autopsy when patience and understanding are employed. Failure most often occurs when dealing with the fifth group.

The type of cases has a great deal to do with the ease or difficulty of obtaining the permission. Unexpected death is unfavorable. In cases with prolonged illness and numerous therapeutic procedures, permission is often refused. Prognosis should not be too favorable when there is any doubt. Unusual and complex angles of the case requiring special postmortem study should be emphasized.

What is an autopsy? The contract with relatives should not be forgotten: the report and explanation to relatives; the cooperation with the undertaker, i.e. the relatives have a right to some of the benefits of the examination.

Interview No. 2

Kindness

Obtaining autopsy permission is a lesson in the care of patients. Consent is given because little kind things, probably very trivial, have been done. More of these things should be done to patients and relatives even when a fatality is not expected.

Interview No. 3

Points on Securing Postmortem Examinations

One materially increases his percentage of postmortem examinations if, from the first contact with patient and relatives, the impression is created that nothing has been or will be left undone in caring for the patient. Confidence is thus established. At the moment the prognosis seems grave, full details should be discussed without equivocation, with those from whom legal permission will have to be obtained. At this time, permission for postmortem examination should be sought even though there remains a slight chance for recovery. The interested parties are thus prepared for the outcome and are better able to discuss the whole thing cooly and much more calmly than at death. Some definite point which has been puzzling or unusual should be stressed as a reason for securing the examination.

V. REASONS FOR DOING AUTOPSIES

1. Prevent live burial -- Probably not a very good reason but many people want to be very certain on this point.

2. Determine cause of death -- In 1900 our accuracy was very low. In 25 years diagnostic accuracy in a well-organized institution rose to more than 90%.

3. Render justice -- the Coroner acts as the friend of the deceased in all cases in which violence or mystery is involved.

4. Unearth scandal -- The detection of venereal disease and the benefit of the discovery for the other members of the family.

5. Make better records -- The autopsy is the last chapter of the book of illness.

6. To teach -- An unusual opportunity to demonstrate both normal and abnormal anatomy for students in all scientific branches.

7. Develop discipline in individuals and staff -- A good rule to follow in selecting a hospital in a strange town is to inquire as to their attitude and percentage of autopsies.

8. Study rare and unusual disease -- Staff man Cecil Watson once had an opportunity to study histoplasmosis. Many other rare diseases are encountered in routine examinations.

9. For better embalming -- A short distance and multiple injection areas is of value. Some of our cases have been kept pending disposition by relatives, shipped to Scandinavian countries, etc.

10. Settle insurance claims -- The case with the autopsy report is not so difficult to judge.

11. Reveal contagious disease -- The public health value is obvious.

12. Spiritual value -- All thinking men see in the autopsy an opportunity to do goot to their fellowmen.

13. To study disease -- the most important from our standpoint.

14. Consolation for family and friends -- The only real answer to the question as to whether everything was done that should have been done.

15. To study inherited disease -- The purpose is obvious.

16. Scientific discovery -- An autopsy done in this institution by Dr. Moses Barron was the stimulus to the discovery of insulin.

Note: It is obvious that not all of these reasons can be used in urging this examination. It is apparent that there is more than one side to this question. No family, hospital, or community should be denied the benefit of autopsy examination just because some physician does not believe that it is necessary in the average case.

ELIAS POTTER LYON

It was only a short time ago that we sat in his office with him on his last day on the job. All were reluctant to go, but finally we departed, leaving to him the privilege of his last glance alone in his familiar surroundings. Today, as he is being buried, we are again leaving him alone, as he goes on, but our thoughts are with him and his accomplishments. He decided early in life to be a science teacher. Medicine happened to be the place in which he found himself. He built two schools, St. Louis and Minnesota, but his influence was extended to all medical schools in this country and abroad, as he was the Dean of the deans. He was fortunate in that he was able to stand criticism as he led the group. Always ahead of the procession, the things that he advocated are now the accepted way. His sense of humor was often too much for some of his agitated co-workers and associates. In the end it was his saving grace for it helped him over the rough places. He was a good friend to youth and was not afraid to put young men in important places. He was kind to the underprivileged. He believed that it was impossible to be the judge in every case. They will bury his body but his spirit will never die at Minnesota.