PERMISSION FOR AUTOPSY—GRANTED*

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AUTOPSY is one of medicine's most effective means to unveil medical mysteries. In the nineteenth century, for example, "generalized inflammation of the bowel" was a frequent cause of death. The precise nature of this disease was defined from the results of 446 autopsies, so that by the twentieth century the acutely inflamed appendix was removed before the onset of dangerous peritonitis.[1] Untold millions of persons owe their lives to the relatives of the deceased patients who allowed those investigations to be made.

Insulin was discovered through the study of tissues obtained at autopsy. Degenerating islets of Langerhans were found in the pancreas of a patient dead of diabetes. In 1921, insulin was isolated[2] from islets of Langerhans, and as a result today in the United States alone more than one million diabetic persons are able to lead relatively normal lives.

The primary purpose of an autopsy is to learn facts that will prevent the deaths of other persons having the same or similar conditions. To conduct an autopsy, legal permission must be obtained. To secure permission, a few facts, a little effort, and a deep personal belief in the good to be gained are all that are needed.[3] During the past year there were 45 deaths on our service and 44 autopsies were conducted. How we secured permission to perform those autopsies, and what information was particularly instructive, form the basis of this paper.

Securing Permission for Autopsy

The frequency with which permission is secured for an autopsy depends greatly on the attitude of the physician who requests it. The physician who has been closest to the family should always ask the permission. In keeping the relatives informed of the patient's progress, he has thoroughly established rapport, and is best suited to request the autopsy. Whether on duty or not, the resident physician who knows the relatives best, should be available if the patient dies.

Permission should be requested at the very time the family is told of death. Despite grief and shock, the average person will be more ready for reasonable discussion at that point than later. The request should be made in private to one person, the responsible relative.[4] The longer the interval after death, the less is the likelihood of the responsible relative's granting permission.

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The approach for the permission is determined by the type of individual the responsible person appears to be. There are three types of relatives easy to identify. Those most likely to give permission are the intelligent and informed. They need only reassurance and perhaps a logical explanation. Telling such a relative that everything possible was done to save the patient is all that is usually necessary to secure his permission. In other instances one may suggest that the death could have been the result of some inherited weakness, and that the examination might spare the life of some other member of the family.[5] The more intelligent the relative, the more will he appreciate the fact that the autopsy makes a contribution to medical knowledge.

A second type is the hysterical relatives. They are exceedingly difficult to approach. Here, kindness and understanding of their personal loss are needed. A young or hysterical mother may not be interested in the advancement of science as such, but she may be eager to do something that might spare another mother similar grief. If the person is unable to enter into a rational discussion, a sedative is indicated; the discussion then should be postponed until after a period of rest.

A third type includes those persons who are uninformed and of limited intelligence. They may have emotional problems that will complicate the physician's approach for a request for autopsy. For this group the explanation must be simple and brief. They may need to be told that the autopsy will cost them no money. A firm approach will frequently help secure the autopsy permission. The uninformed relative must be shown that signing the permit constitutes a legal responsibility and, at the same time, is a privilege.

The most common argument for refusal is that the deceased "has suffered enough." This argument is overcome by reassurance that the beloved one is in the hands of God, and what remains cannot suffer. Another reason is the unendurable thought of having the body cut into. A sympathetic explanation will emphasize that the examination is indeed like an operation, and that it will not affect the body for viewing at the funeral. A third reason for refusal is the question of possible violation of religious customs. A leader from the involved denomination when called upon will answer this question negatively. A fourth cause for refusal is the unwillingness to have students practice surgery on the deceased loved one. This misconception is corrected by assurance that only trained pathologists may carry out the examination. The fatalistic argument may be a stumbling block—that the inevitable outcome has occurred, and that the autopsy can serve no useful purpose; this can best be answered by comparing the purpose and the procedure of an autopsy to that of the routine physical examination of a living person.[6] For example, a routine physical examination could disclose an unsuspected tumor, or heart disease, which if treated immediately, could prevent serious subsequences.

Permission for autopsy can never be requested in a standardized manner; a

high rate of refusal follows such a stereotyped attempt. The approach must be humane, intelligent, and designed to fit the specific person who must be the one to give permission for autopsy. As outlined by Jeffers[7] there are several "don'ts" that are important: Don't appear to be apologetic. Don't allow irrelevant discussion. Don't overpersist. Don't compare the postmortem examination with embalming. Don't use the word "autopsy;" but say "complete examination" or "examination after death." The person responsible can be made to realize that his permission is needed in order to perform an autopsy, without the actual use of the word "autopsy" which sometimes is unpleasantly received.

On the neurosurgical service there is a policy of cooperation and support: if the resident who is making the request for autopsy is failing in the attempt, he should immediately stop the discussion and advise the senior resident or the staff physician, so that one of them may take his place. If the last physician who makes the request also is unsuccessful in his attempt, there still is an argument that may persuade. Forcefully remind the relatives that their beloved one is dead and the doctors have failed. Show them that doctors can do no better for the next patient with the same disease if nothing can be learned. But something can be learned if an examination is performed.

Autopsy permission was not granted in one case. This patient had not undergone an operation and was transferred, to our service, only for terminal care. The wife did not speak English and was unable to come to the hospital because she herself had heart disease. Furthermore, the physician belatedly met the stepdaughter, the next of kin, who subsequently refused permission.

Illustrative Cases

The autopsies disclosed unexpected findings in several cases. Five such cases are presented, two of which brought improvement to our present technics.

Case 1. A man was thought to have an intracranial hematoma. The night before he was scheduled for surgery, he suddenly died. The resident staff believed that an intracranial procedure had been delayed too long. Autopsy disclosed an unsuspected dissecting thoracic aneurysm as the cause of death.

Case 2. A woman fell the day after operation for trigeminal neuralgia. She was found unconscious with fixed pupils and was immediately taken to the operating room where the wound was reopened. When no intracranial hematoma was seen, a clinical diagnosis of brain-stem thrombosis was made. She died a few weeks later. The autopsy revealed that the cause of death was a subdural hematoma located a few centimeters above the upper edge of the operative wound.

Case 3. A woman had a subarachnoid hemorrhage. Findings on bilateral carotid and right vertebral arteriograms were normal. On the day of her discharge, another subarachnoid hemorrhage occurred and she died. Autopsy revealed an aneurysm on the only major intracranial artery that had not been visualized: the small segment from the contralateral vertebral artery. A bilateral vertebral arteriogram, which was never per-

formed as a standard procedure, would have established the correct diagnosis. Now, when a single vertebral arteriogram does not disclose the cause of a subarachnoid hemorrhage, a bilateral arteriogram is performed.

Case 4. A patient died after a decompressive laminectomy that had been otherwise uncomplicated. Coronary thrombosis was believed to be the cause of death. However, the autopsy revealed a massive air embolus. This initiated an investigation of similar previous complications. It disclosed that a light plane of anesthesia in a patient with an endotracheal tube was contributory to the complication of air embolus.

Case 5. A child had a huge cystic craniopharyngioma totally removed while under hypothermia. He tolerated the procedure well, but during the second postoperative week he died. At no time was there a fever; hence, the spinal fluid had not been examined. The autopsy revealed a severe widespread meningitis. The inflammatory process apparently had been concealed by the hypothermia.

Summary

In 44 of 45 cases, permission for autopsy was granted. Permission is obtained primarily on the basis of rapport previously established between the physician and the responsible person. The planned approach considers the responsible person's emotional and intellectual capacities so that the benefits of the postmortem examination will be understood by him. Unexpected findings in several autopsies brought about improvement both in diagnostic and in surgical technics.

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