

## THE MORTALITY IN OPERATIONS UPON FIBROID TUMOR OF THE UTERUS.

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RECENT papers on the "Degenerations of Fibroid Tumors of the Uterus," such as those by Noble, McDonald, Frederick, Hunner and others in which claims are made for such large percentages of various degenerations and on account of which the general deduction is drawn that all fibroid tumors of whatever character should be removed are apt to set one thinking as to other factors in these cases which may bear on the final conclusions to be adopted.

My own experience in these matters differs quite materially from those expressed by Noble in his paper read before this Society at its last meeting. In the first place, I have been so fortunate as not to see such a great number of degenerations in these tumors. What looks like a degeneration at times to the eye proves quite otherwise under the microscope and I may add that I have on several occasions had in my operating-room such degenerations called to my attention, have disputed the accuracy of the observation and on section and microscopic examination have satisfied those concerned of the correctness of my view.

Furthermore, degeneration of the tumor does not of necessity imply either symptoms or danger. Calcareous degeneration is probably one of nature's efforts to destroy the tumor, and in its results is practically harmless; it certainly in my experience adds no extra risk to the patient. In no case of

cystic degeneration of a fibroid tumor have any symptoms other than those which usually obtain in such growths been observed by me. Myxomatous and hyaline degenerations are chiefly of interest pathologically; clinically in my experience they are not of much importance. So much is this so that no one has unless in a rare case ever suspected their existence until after the operation. Much the same holds true of edema. Necrosis and malignant degenerations are the exceptions. Even here my sympathy is largely with Bland Sutton's assertion that many cases of supposed sarcomatous degeneration of fibroid tumors have been sarcomas from their inception.

Look at it from this standpoint (and one is justified in being governed by his own experience rather than by that of others whose observations they have been unable to personally verify) the estimate made by Noble that 16 per cent. of 1188 cases considered would (without operation) have died because of the degenerations in the tumors is pure guess work and consequently too inexact to be accepted as a fact. His further assertion, "that at least a third of the women having fibroid tumors would have died had they not been submitted to operation," is gratuitous and consequently misleading as applied to the dangers of fibroid tumors. Because a woman happens to have a ventral hernia, a carcinoma of the umbilicus, an appendicitis, a tuberculous peritonitis, or some other of the many complications mentioned by him is no reason for considering the fibroid tumor of the uterus dangerous. Nor can any living man even approximate the percentage of "intercurrent diseases brought about by the chronic anemia present in many of the cases." It might even with some degree of safety be questioned whether this ever occurred; at any rate we have at present only assertions for this but no reliable data for proof. As to the "injurious pressure from the tumor upon the alimentary canal and urinary organs," I have long been convinced that this is largely a myth.

While I in some measure reach a similar conclusion as do these gentlemen as to the advisability of operating upon a large proportion of fibroid tumors which come under my observation, I do so largely, as does Deaver, from the standpoint of symptoms and likewise from that of prognosis as influenced by the remote results of operations: not from any fear of the degenerations and their consequences. Like Sturmdorf, in attempting "to establish the indications for radical operative interference" of this condition I never lose sight of the remote as well as the immediate result of the procedure, and in doing so am shocked at the estimates of danger we constantly observe put forward by surgeons. Sturmdorf, in summing up the results of operative treatment for this condition, states that "no woman afflicted with uterine fibroids and subjected to modern operative technique should lose her life *if operated at the proper time.*" Gordon tells us "the mortality was so small that one could hardly estimate it in connection with this operation." Noble declares "his own opinion about the mortality was that if operation were done early it was about 1 per cent." And so with a large number of others.

It is true that few operations are on a more sure and easy basis than hysterectomy for fibroid tumors of the womb if we consider the immediate result and the technique only. Under these circumstances the above estimates are not far from correct. And so it is the remote results as far as mortality is concerned which are of most importance. These it is which have taught me that radical operative procedures on fibroid tumors of the womb are the most dangerous operations I have to perform and which cause me more anxiety after my patients are apparently convalescent than all the other operations I am called upon to do.

Whitridge Williams, in discussing Noble's paper last year, asked an exceedingly pertinent question and one which remained unanswered; the answer of which is of vital importance in mortality estimates. He asked "if in this large

number of cases there had been a number of cases of thrombosis of the pulmonary vessels with fatal pulmonary embolism. So far as he had been able to learn, a fibroid tumor sometimes produced a condition which favored thrombosis in the pulmonary vessels." No one else in the whole discussion seemed to think the subject one worthy of mention either before or after his attention had been directed to it by Williams. Likewise in a long discussion before the New York Obstetrical Society on "Causes of Death Following Abdominal Operations," but one man (Mallett) considered the subject worthy of mention.

That embolism has to a degree been recognized as a danger peculiar to fibroid disease is clear. Deaver in a recent paper states "the great frequency of myocarditis and arteriosclerosis apparently caused directly by the fibroid growth is well known; and to sudden heart failure, to pulmonary embolism, or to apoplexy may no doubt be attributed many a postoperative death occurring at the beginning of an apparently normal convalescence." In a series of 1800 laparotomies that Mallett examined "death occurred in 6 cases from embolism. In 3 of the 6 cases the operation was performed for fibroma of the uterus." The 3 cases died, respectively, twenty-eight hours, forty-eight hours, and four days after the operation. In all the cases death occurred suddenly.

Investigation, according to Shoemaker, has shown that the heart muscle in the presence of fibroid tumor is liable to a special form of degeneration and in this opinion he follows closely what was asserted by the German surgeons years ago. And so, although in fibroid disease embolism and cardiac degeneration have been recognized and sudden death from these causes have occurred (although only too infrequently reported) we are almost universally told by surgeons that operations for fibroid tumors are comparatively safe. In this connection I have recently gone over the books of the Gynceean Hospital from the opening of the institution,

eighteen years ago, and find there have been nineteen patients to whom sudden attacks as of a stroke of lightning have come; all but two of whom have died. These cases occurred in the work of four different surgeons— Drs. Baldy, Penrose, Erck, and Beyea. The attacks with two exceptions have occurred after operation and at a time when the patients were considered convalescent and wholly safe. One case died before operation, the second one four hours afterward. The other 17 cases occurred as follows: 1 on the second day, lived twelve hours; 2 on the third day, 1 lived twelve hours, 1 recovered; 3 on the fourth day, 1 lived two hours, 1 twelve hours, 1 forty-eight hours; 2 on the fifth day, 1 lived two hours, 1 forty-eight hours; 2 on the sixth day, 1 lived fifteen minutes, 1 forty-eight hours; 4 on the twelfth day, 1 recovered, 1 immediate death, 2 lived fifteen minutes; 1 on the eighteenth day, lived three days; 1 on the thirtieth day, immediate death; 1 on the thirty-fifth day, lived two hours.

These attacks occurred without warning or apparent cause in any case; one patient was stricken while laughing and joking with other patients and was dead almost as soon as a nurse could reach her; another patient was aroused suddenly in the night from a sound sleep, sat up in bed, gasped and dropped over dead. I had another patient, from the Polyclinic Hospital, who had been home for two weeks; while talking and laughing with friends she sat down on the bed, fell over, and died before help could be summoned.

Diagnosis was made in 13 cases of heart, 4 cases of lung, 2 cases of cerebral apoplexy. In one of the heart cases the attack lasted only twenty-four hours, the patient recovering; one of the lung cases lasted for weeks, slowly recovering.

During the period considered there were admitted (for operation) to the house 3413 patients. There were in all 366 cases of fibroid disease. Thirteen of the nineteen sudden attacks occurred amongst the fibroid class, or 3.55 per cent. of the total. Six sudden deaths only occurred among the 3047 remaining promiscuous class, or 0.10 of 1 per cent.

The enormous difference here is startling and most suggestive.

Of late years it has been the habit of those connected with this hospital to operate upon all cases of fibroid tumors admitted; in years past only far-advanced and complicated ones were selected. Consequently, these cases include both early and easy cases, as well as those long standing and complicated. It is, therefore, from every standpoint a fair test group both from the number of different operations and the character of cases considered. The proportion of these attacks in this fibroid group is exceedingly significant and the lesson taught of the dangers of the disease both early and late cannot be ignored. This experience is borne out in my other hospital work, and Dr. Erck tells me his is the same, having had two such deaths during the past year at the Frederick Douglass Hospital—one occurring fifteen days after operation, the second one twenty-eight days afterward.

The different theories advanced by different writers as to the cause of these accidents may or may not be true (Maurice Richardson, for instance, believes them all to be due to embolism of the pulmonary artery); the fact remains, keep a patient in bed as long before an operation as possible, administer any and every treatment conceivable, pick the cases early or late the accidents will occur in spite of all at the most unexpected times and without the slightest preliminary warning. We are helpless to anticipate or prevent them.

I have long ago with others held that fibroid disease of the uterus is not a local disease alone, but that the process is practically a general one in that it involved in one way or another various organs; how many and to what extent and how early we are unable to tell.

To me this belief has always been the strongest reason for my preferring to operate on fibroid tumors of the uterus as early as I see them. Many of the degenerations are merely

efforts of nature to remove the local growth and have not influenced me to a great degree.

Richardson, in his excellent paper "On Certain Unavoidable Calamities Following Surgical Operations," has called attention to and emphasized the great dangers in loss of blood in causing these accidents. In fibroid tumors, large and small, this is the one symptom almost always dominant, and the one, as a rule, looked upon with great complacency unless it becomes acutely severe. The teaching from certain quarters has been and is still, "control the bleeding and ignore the local tumor as long as there are no more serious symptoms." In my opinion this is the most serious symptom which accompanies this disease, and should always demand control by immediate removal of the growth.

After all is said and done, however, most of us have arrived from one cause or another at the same point—*remove these tumors when you first see them.* But personally I do not deceive myself with the belief that I can do so with a 1 per cent. mortality, nor anything like it. The earlier we can get these cases, however, the better will we be able to cut down the percentage of sudden deaths. The degenerations which are at the bottom of these results, be they in the blood, in the vessels, in the lungs, in the heart, or where, must have a beginning, and there must be a point early in the inception of the disease when their influence is at a minimum. The earlier we operate the nearer we come to this point of safety. As a practical man, then, looking to the future as well as to the present interest of the patient I believe that all fibroid tumors of the uterus should be removed when first seen, especially the small and early ones.