

## PREFACE

IN 1894 we commenced a careful study of uterine myomata and contemplated publishing the results of our findings. A year later, however, the work was temporarily laid aside, as it was deemed wiser to take up the subject of carcinoma of the uterus. After the publication of that work in 1900 we again turned our attention to uterine myomata, and since that time we have been continually gathering data on that subject.

Our material has been drawn from (1) the cases operated upon at the Johns Hopkins Hospital from the opening of the institution in 1889 to January 1, 1909; (2) those that have come under the care of Dr. Kelly at his private hospital; and (3) those operated upon by me at the Church Home and Infirmary, at the Cambridge (Maryland) Hospital, and at the Emergency Hospital in Frederick. The total number of cases examined was 1674. After obtaining complete abstracts of the histories, the tumors were again examined, and many new and interesting changes were found that had been overlooked in the regular routine laboratory examinations. Descriptions of the gross and histological appearances of the myomata were made, and these descriptions were then attached to their respective histories.

After carefully surveying the great wealth of material, the question arose as to the advisability of reviewing the vast amount of current literature on myomata, and it was found that to adequately cover it, and at the same time fully discuss our own material, would necessitate the publication of three or more volumes. Under these circumstances, we felt that no one would wish to read so much on one subject, and that it would be wiser to confine our efforts to a thorough study of our own material, with which we were thoroughly familiar. The present volume, therefore, deals almost exclusively with the work done by those connected with the gynecological department of the Johns Hopkins Hospital and of the Johns Hopkins University.

It may be of interest briefly to detail the method adopted in correlating the many points of interest contained in the large amount of material. We started off without any preconceived theories and determined to carefully analyze the cases at our disposal. After several months of indecision as to the best method of handling the subject, we finally adopted the card system. Every history and pathological description was read and each point of importance was underscored. Then a card was made of each point. This card also had the case number and the pathological number. Some cases contained little or nothing of interest;

for other cases, from five to ten cards were necessary. As a result we had several thousand cards. These naturally fell under certain main headings. This gave us a more concrete idea of the material and clearly indicated the chapter classification. The card-index was of the greatest assistance; in the first place, because it enabled us to get every point of interest, and, secondly, because when a given subject was under discussion it was only necessary to pick out the cards of that group and then select the ten or twenty histories, as the case might be, instead of each time going through sixteen hundred histories, with a strong likelihood of overlooking several cases. We fully realize the important part played by the many assistant residents and the residents of the Gynecological Department since the opening of the Hospital; had it not been for their careful and conscientious histories and descriptions of the various operations performed, this work would have been impossible.

On account of the great importance of sarcomatous changes occurring in or associated with myomata and the by no means infrequent association of carcinoma of the fundus with myomata, we have considered both of these subjects at unusual length.

The chapter on adenomyoma reached such large proportions that we found it necessary to deal with the subject in a separate volume.\* On the other hand, the chapter on myoma and pregnancy is rather fragmentary, as we do no obstetrical work.

We have not discussed the history of the development of the surgical procedures appropriate to uterine myomata. This has been so well handled by Dr. Charles P. Noble† that nothing would be gained by duplicating the account. Only the various operative procedures that we personally have used are described. Dr. Kelly being out of the city, it devolved upon me to briefly outline the scope of the book, and although I know he would be averse to any personal mention of his work, I feel it my duty to say a few words relative to his share in the development of operations for myomata. It was my good fortune to come to Baltimore in 1891, shortly after the hospital opened. At that time many cases of myoma were considered inoperable, and even when hysterectomy was undertaken it was only in the cases in which a stout rubber ligature could be temporarily tied around the cervix; and when, as happened in some cases, this ligature slipped, alarming hemorrhage followed. Then came the systematic controlling of each of the cardinal vessels; later the bisection, and finally the transverse severance of the cervix as a preliminary feature of the operation in exceptionally difficult cases, until at present a myomatous uterus that cannot be removed is almost unheard of. I have watched the gradual simplifications of the surgical procedures with the greatest interest. Many American surgeons have had much to do with the wonderful advance in this direction, but I know of no other man,

\*Thomas S. Cullen, *Adenomyoma of the Uterus*, W. B. Saunders Co., 1908.

†In Kelly-Noble, *Gynecology and Abdominal Surgery*, vol. i, p. 660. W. B. Saunders Co., 1908.

either here or abroad, who has done as much toward this advancement as Howard A. Kelly.

We have purposely laid much stress on the mistakes and mishaps that have occurred, and have given our deaths in full, as we feel that much more can often be learned from failures than from successes. Moreover, we felt that a frank statement of our mishaps might help other surgeons to avoid the unpleasant complications that we have occasionally encountered.

Our mortality, taking all the cases from 1889 to July 1, 1906, was rather high—between 5 and 6 per cent. It included all the early cases, but also embraced many of the desperate cases and also many cases of myoma associated with malignancy. Just before going to press we have gone over the histories from July 1, 1906, to January 1, 1909, and find that in 238 myoma operations the death-rate has been less than 1 per cent.—an evidence of a continued improvement in our operative technique.

The work would not have been complete without some reference to the autopsy findings in a large number of cases. Professor William H. Welch kindly placed his valuable records at our disposal. We are also deeply indebted to him for the sympathetic co-operation he has always accorded us in the laboratory studies.

To the casual observer the preservation of myomatous material to the extent of several tons would seem unnecessary, but Dr. Henry M. Hurd has assisted us in every way. This foresight has been of the greatest value in many instances, notably in those cases in which sarcoma had been overlooked at the first examination, or in which subsequently to a supposedly simple hysteromyomectomy, a sarcoma developed in the stump. We also owe much to Dr. Hurd for his advice.

The illustrations have been made with wonderful accuracy in detail by Mr. August Horn and Mr. Hermann Becker. Further comment is unnecessary, as the pictures speak for themselves. We are also fortunate in having several examples of Mr. Max Brödel's work. When it is said that a drawing has been reduced one-half, linear measurement is intended. In reality the flat surface of the picture is only one-fourth the natural size. It is well to bear this point in mind, otherwise the reader will not get an adequate conception of the actual size. With few exceptions the illustrations are original. We wish to thank Dr. George H. Simmons for allowing us to use several of the illustrations which we have already published in the "Journal of the American Medical Association."

To Mr. Harry Hall and Mr. Hardy, of the Surgeon-General's Library, we are indebted for their kind assistance rendered while we were verifying the literature.

Dr. Herbert I. Cole, of Mobile, Ala., rendered much assistance in the preparation of the chapter dealing with the findings at autopsy.

Mr. Benjamin O. McCleary made most of the slides from which the histological pictures have been drawn. He also rendered most valuable aid in controlling the many numbers scattered throughout the book and also in checking off all measurements.

Our thanks are due Dr. Frank R. Smith, not only for his correction of the proof-sheets, but also for his kind criticism of their contents. In numerous places he has indicated that the original text, while satisfactory to the specialist, might not have conveyed the proper meaning to the general practitioner.

Dr. Ernest K. Cullen spent his entire time for over a year in locating former patients, in filling in missing data, and in analyzing the cases from numerous standpoints. He has also devoted much time to the book in the last two years, and during the progress of the work has made many valuable suggestions. He has carefully followed the proof-sheets through the press, paying especial attention to the accuracy of the numbers. It is impossible for us to adequately thank him for the large share he has had in the making of this volume.

Miss Cora Reik has been of the greatest assistance to us in the gathering of the histories and laboratory abstracts and in the preparation of the manuscript.

Our thanks are also due to the W. B. Saunders Company, who have done all in their power to procure the best possible reproductions of the illustrations and to facilitate the progress of the book through the press.

In conclusion we can only say that if the reader gets a tittle of the pleasure from the perusal of this volume that we did in gathering the material its function will have been fulfilled.

THOMAS S. CULLEN.

BALTIMORE, MD.,  
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