

MARTIUS' GYNECOLOGICAL OPERATIONS

With Emphasis on Topographic Anatomy

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Translated from
*Die Gynäkologischen Operationen
und ihre Topographisch-Anatomischen Grundlagen*
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by
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FOREWORD

Professor Martius' work, **Gynecological Operations**, was published in 1936, and the first English translation appeared in 1939 under the editorial supervision of the late W. A. Newman Dorland. Even upon a cursory examination it became apparent at once that here was the work of a master gynecologist — an opinion which was borne out by a more detailed appraisal.

This second translation under the editorship of Professor Milton L. McCall and Dr. Karl A. Bolten presents all the valuable features of the older work as well as a large amount of material which Dr. Martius has added. While no attempt was made to annotate the entire text so far as the difference between German and American gynecologic thought is concerned, the senior editor has, through his comments, helped to clarify some of the more important points along this line.

The general plan of Martius' work is admirable. The topographic anatomy of the area concerned is described in parallel with the operative technique and not in a separate section of the book. Thus the student of any particular operation will perforce review the anatomy as he studies the successive steps in technique.

Because, as its title implies, the book is on operative gynecology, there is little or no discussion of pathology. This is as it should be, because otherwise the volume would become entirely too bulky and also because the technique of an operation is far more closely concerned with anatomy than with pathology. Obviously every gynecologist must of necessity be a qualified pelvic pathologist, but this knowledge is best acquired by special studies in pathology undertaken concurrently with the observations of operative procedures.

The feature which most sharply differentiates Martius' book from other texts upon operative gynecology is the number and quality of the illustrations. At first glance these appear to be crude and casual, greatly lacking in the elegance and meticulous attention to detail to which American students have become accustomed by the beautiful drawings of Max Brödel and his successors. On closer scrutiny, however, one finds that every salient step in a procedure has been sharply delineated, with the necessary anatomic details of tissues surrounding the surgical field clearly and simply shown. There is a separate illustration for every step of an operation, no phase of the procedure being left to the imagination of the reader. Indeed, it might almost be said that anyone familiar with surgical method could perform any pelvic operation successfully after studying Professor Martius' illustrations alone, without reference to the text. When it is realized that in this present edition, seventy-nine entirely new illustrations have been added, the increased importance of the book becomes apparent at once.

The concluding chapter is devoted to an exposition of abdominal operations which though not truly gynecologic in scope, nevertheless must be performed oc-

casionally by the gynecologist during the course of his pelvic surgery. Here are described herniorrhaphies, intestinal resection and repair, the making of colostomies, and the like. Such a chapter is a practical necessity since the procedures described sometimes become imperative.

Mention has been made previously concerning the editorial work of Professor McCall. Clarification of the text into an acceptable form is an editorial accomplishment of vital importance. By preserving the exact meaning of the original, as well as by adding some of his own annotations, a great gynecologist in his own right in our country has contributed to a great work in world literature in the field of gynecologic surgery.

Edward A. Schumann

PREFACE

The seventh edition of **Gynecological Operations** by Professor Heinrich Martius is the latest and best edition of what has become the pre-eminent continental work on pelvic surgery in women. The only previous English translation was that of the first edition. It appeared in 1939 and was edited by the late W. A. N. Dorland. In the interval of seventeen years which has followed, a number of obstetricians and gynecologists of this country have expressed the wish that later editions be made available to the English-reading medical profession. For this reason, as well as because this work has gained in stature during the intervening years, the English translation of the seventh edition was undertaken.

The task of producing the present volume has been under the coeditorship of Dr. Karl Bolten and the writer. Dr. Bolten, formerly of the University of Bonn, translated the German text into English in a literal sense. Further editing made it possible to express in familiar English the precise meaning of the author. German texts are traditionally more repetitious than ours, and much of such repetition has been removed from this translation. We trust that whatever remains will serve only to enhance the reader's understanding of the author's meaning.

There are several excellent American and English texts dealing with the surgical aspects of gynecology. Martius takes the place of no one of these, but supplies a much needed and rich addition in a field where no single work is a complete one.

Professor Martius has produced a book which is extremely practical. It is a straightforward description of operative technique. It is devoid of bulky inclusions of preoperative and postoperative care. Emphasis is placed on the anatomic approach to female pelvic surgery, and the topographic anatomy of individual operations is beautifully portrayed by over four hundred illustrations.

Among the outstanding features of the book is the depiction of the various vaginal plastic procedures. Urinary fistulae are taken up in a thorough manner, and the efficacy of adding the author's bulbo cavernosus fat flap procedure in these cases is emphasized. The anatomic mechanisms of the female vesical sphincter are portrayed in a detailed and interesting manner.

The ultraradical operations for carcinoma of the cervix as described by Brunschwig are not included. The Wertheim procedure and the Schauta-Amreich radical vaginal operation are described in some detail. The latter is especially beautifully illustrated by Professor Ernst Navratil of Graz, Austria.

There are a number of operations described which either have become outdated or have never been seriously evaluated in the English-speaking countries. These include, among others, the Alexander-Adams uterine suspension and vaginal subtotal hysterectomy.

There are also a few instances where the author's views as to selection of

techniques are quite opposed to current American thought. The most outstanding example of this is his defense of subtotal abdominal hysterectomy. It is the opinion of this editor, however, that these few inconsistencies do not detract from the overall obvious value of Professor Martius' sound gynecologic technique and judgment. No attempt has been made to point out all the differences between the German and American viewpoints, although the senior editor has made a few annotations concerning the more obvious discrepancies.

We hope this translation will appeal to at least three distinct groups. The seasoned and experienced gynecologist is bound to be interested in the variations of technique portrayed. He may, with equal pleasure, permanently add some of these to his operative repertoire or, after careful comparison with his own methods, disregard them completely. The younger gynecologists in the latter years of residency or the earlier years of active professional life make up a second group who may be benefited by having this volume available. Inasmuch as there is no single text in gynecologic surgery which is actually complete, the young man or woman interested in having a broad perspective of female pelvic surgery would do well to add Martius to his literary diet in this field. Finally, a third group which may benefit from this new translation of Martius includes the general surgeon who by necessity or choice practices operative gynecology. He will be especially grateful to have such an outstanding reference work for vaginal operations, a branch of gynecologic technique with which he is apt to be least familiar.

To have Dr. Edward A. Schumann of Philadelphia, one of the truly great men of obstetrics and gynecology, contribute a foreword is an honor that is felt deeply. Dr. Schumann has been familiar with this work since its first edition and introduced it to this editor while he was serving as his Resident at the Old Kensington Hospital for Women.

I am immeasurable indebted to my secretary, Miss Grace-Margaret Webster, not only for her help in reading the manuscript and checking bibliography, but also for typing the entire text repeatedly as the necessary changes from a literal translation to standard English usage were gradually perfected.

Finally, it is a pleasure indeed to thank Mr. Theodore A. Phillips of Little, Brown and Company for his unflagging interest, frequent counsel, and continual co-operation in the preparation of this volume.

September 30, 1956
New Orleans, Louisiana

Milton L. McCall

PREFACE TO THE SEVENTH GERMAN EDITION*

This seventh edition of my **Gynecological Operations** is dedicated in friendship and gratitude to my publisher, Dr. B. Hauff, M. D., on his seventieth birthday. He and I have collaborated closely ever since the beginning of my literary and medical career.

Modern surgery, aided by new pain-relieving, relaxation, and antishock methods, as well as blood transfusion, chemotherapy, and the use of sulfonamides and antibiotics, has progressed considerably in recent years. This is also true of gynecologic surgery. The purpose of this book, however, is not to treat the aspects of general surgery, but to show the topographic and anatomic bases of gynecologic surgery, particularly where topographic anatomy is modified by the pathology present or the operative procedure. Therefore the general outline of this new edition has not been changed. Anatomic elements do not change, and a thorough knowledge of their structure remains the basic prerequisite for successful surgery.

Since this book is intended as a manual for daily, practical use at the operating table, it seemed wise not to overload it with new and lengthy special methods whose validity has not yet been established. It was only in the discussion of selection of methods that I felt it necessary to make a number of changes. The progress of modern general surgery now permits the application of older, established methods which have previously been considered too dangerous.

In regard to individual procedures, I have revised the radical operation of Schauta-Stoeckel and have added a series of ten illustrations newly designed by Miss Käthe Droysen. I have also used many photographs which were taken from my own practice, and those which E. Navratil has been kind enough to put at my disposal. I wish to express my gratitude to him for this. New drawings were made for the plastic operations on the vagina and vesicular floor, with particular emphasis on the topographic-anatomic modifications of the supporting parametrium. I have demonstrated in this connection that the only difference between suturing the bladder pillars into an artificial supravaginal septum and Fothergill's suture in the Manchester operation is one of degree. In addition, I have included the procedure for construction of an artificial vagina using amnion because I have had good results with this relatively small and harmless operation.

The sections on sterility and sterilization operations have been completely revised. The part dealing with sterilization has been abbreviated and that dealing with sterility has been expanded, bringing it more into line with recent findings. I have risked, in this connection, giving a schematic representation of the different recommendations regarding implantation of the ovary in the uterus. This will in-

* Parts of this preface which do not apply to the present translation have been omitted. —
The Publisher.

form gynecologists as to the existing possibilities in the field of sterility. Since this is the most experimental part of the book and since it deals with methods which are still highly speculative, I hope and expect it to be vigorously criticized.

It was necessary to discuss again the problem of subtotal or total extirpation of the uterus. This problem is still being debated all over the world and has recently returned to the forefront. The publications dealing with it are a good example of the current modern trend in medical science to consider the mass rather than the individual. Statistics are given prominence above individual cases. There is no doubt but that mass statistical data can be of great value in reaching some conclusions, provided it has been reliably compiled. We could not do without it. But in the final analysis our decision must always depend upon the specific individual case. The decision must be based primarily on the individual situation with all its ramifications, with its infinity of unpredictable factors. It must never be made on the basis of "principle," but always on the basis of the "individual." Each man has his own personal fate, and statistics can give us only a general probability.

The chapter on urinary incontinence has been entirely reworked and abridged because the matter of choosing between the existing methods has recently been considerably clarified. As to functional incontinence, I have tried to show, both in the text and in the plates, that lifting, bolstering, and pleating the vesicular collar are all closely related. Lifting and bolstering ease the reflex closing muscles of the bladder, but if it is done without pleating, the result is not satisfactory.

Gynecological Operations was translated into English in 1939 in the United States and into Spanish in 1943. In 1952 it was translated into Serbo-Croatian. An Italian translation is in preparation.

May, 1954
Göttingen

Heinrich Martius

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CHAPTER I

GYNECOLOGIC LAPAROTOMIES

THE ABDOMINAL INCISION AND ITS SUTURE

The Longitudinal Midline Incision

In the majority of gynecologic laparotomies the abdominal cavity is opened by a longitudinal incision between the umbilicus and the symphysis pubis (Fig. 1).

In order to ensure good linear scar formation and to avoid unnecessary bleeding from the abdominal wall, care should be taken that the skin is incised exactly along the linea alba. The linea alba can often, though not always, be recognized by its pigmentation or a longitudinal groove (Fig. 1). Occasionally, especially in pregnancy, it may not be precisely in the midline of the body. If the course of the linea alba cannot be recognized, the skin incision should be made exactly along the connecting line between the middle of the symphysis and the umbilicus.

Inasmuch as it is essential for good scar formation and for cosmetic reasons that the wound margins be apposed without displacement, I recommend making a few transverse nicks in the skin with the point of the scalpel before the skin incision is made (Fig. 5). These nicks will remain clearly visible when the skin is sutured (Fig. 24) and will enable the surgeon to match the wound margins. Later they disappear completely.

The median longitudinal incision will divide the following layers of the abdominal wall: the skin, the subcutaneous fat, the superficial fascia, the leaves of the aponeuroses of the abdominal musculature where it joins the linea alba, the transversalis fascia, the preperitoneal fat, and the peritoneum (Figs. 3, 4).

The anatomy of the linea alba, together with the relationship between the abdominal musculature and the aponeuroses and abdominal fasciae at various levels of the abdominal wall, is shown in Figures 2—4, 14.

The anterior abdominal wall is formed by four paired principal muscles: the rectus, the external oblique, the internal oblique, and the transversalis. There are pronounced ridges of the rectus muscle extending on either side of the midline from thorax to pelvis. Above they are inserted at the xiphoid process (ensiform) and the anterior surface of the fifth to seventh costal cartilages. They approach each other below the umbilicus and are attached to the upper margin of the pubic bone between the symphysis and the pubic tubercles with strong, short tendons. Several transverse tendinous stripes are contained in the bellies of the recti, the so-called tendinous inscriptions, which are intimately adherent to the anterior sheath and

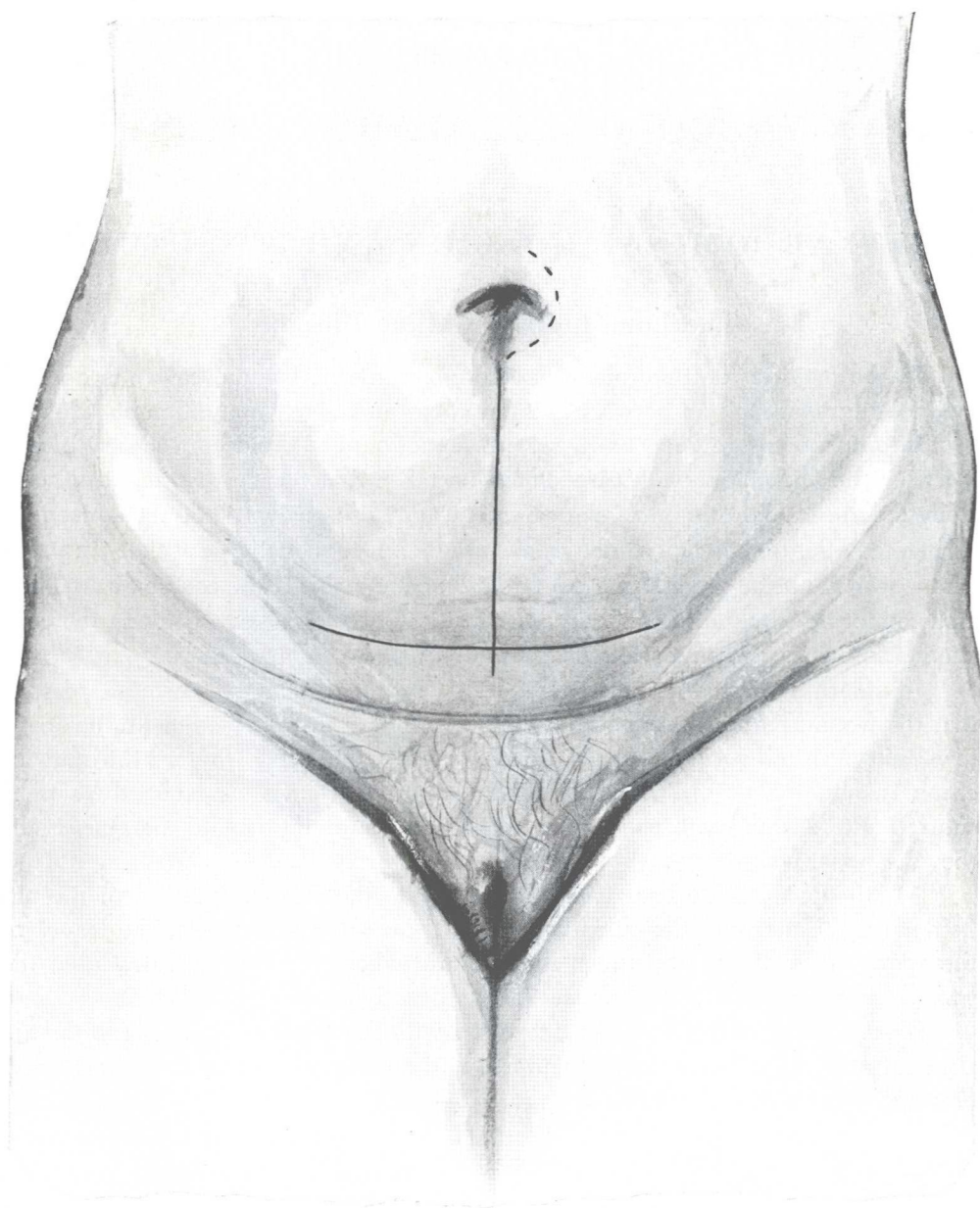


Fig. 1. Types of abdominal incisions used in gynecologic laparotomies.

The longitudinal incision is made along the linea alba between the symphysis pubis and the umbilicus, and, if need be, is extended as a slight curve to the left of the umbilicus and upward. Pfannenstiel's transverse incision of the aponeurosis lies in the so-called "pelvic line".