REOPERATIVE GASTROINTESTINAL SURGERY

Thomas Taylor White, M.D.
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Second Edition

Reoperative Gastrointestinal Surgery

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Foreword

Whenever complications occur following abdominal and gastrointestinal surgery the surgeon confronts one of the most difficult decisions in medicine—whether or not to attempt reoperation. In the inherently complicated case a judgment must be made weighing the risk of reoperation against the potential advantages to be gained. Indeed, if the initial operation presented extreme technical challenges or the patient was in poor condition at the outset, the surgeon may question whether a second look will serve to improve the situation. Occasionally something goes wrong for no clearly identifiable reason after an uncomplicated and apparently well-performed operation—for example, when there is bleeding from the bed of a gallbladder that was clean and dry at the time of closure, or when there is small bowel obstruction after an appendectomy for early appendicitis. Finally, and perhaps too often, the surgeon's initial judgment or technical performance is at fault.

In every circumstance, the guiding principle of the surgeon's life remains responsibility. Although taxed to the utmost in making the decision in favor of reoperating, an experienced surgeon is frequently able to bail the patient out of a situation that would cause a novice operator to founder. When the well-done procedure has gone awry, a second look is necessary; and for the less seasoned surgeon who found an excessive challenge in the initial procedure, there is no substitute for consultation from surgeons

who have complementary experience in solving the immediate problem that requires action.

Drs. White and Harrison offer guidance on reoperations culled from analysis of case after case in all the categories of postoperative complications. Like the First Edition of *Reoperative Gastrointestinal Surgery*, the Second Edition outlines indications and techniques for reoperations subsequent to gastrointestinal surgery, here updated with valuable additions, such as the completely new chapters on wound healing and on the alimentation of patients who are undergoing reoperation. This useful book, which sets forth clear discussions of the chances for success with reoperations and of the timing and extent of secondary procedures to accommodate individual cases, contains a wealth of information for both beginners and practitioners experienced in the art of surgery.

J. Englebert Dunphy

Preface

The nearly seven years since the First Edition of this book appeared have reinforced our opinion that there was a gap in the surgical literature, not only in English but also in other languages, in books regarding the management of complications following gastrointestinal surgery. In the Second Edition we have endeavored to provide a book that can be read at leisure for pleasure and profit, and one that will be effective in helping the surgeon in an emergency situation. To the latter end, we have reorganized the large chapters on the biliary tract, pancreas, and stomach into two chapters each—one for the acute situations and one for the chronic, and we have extended the table of contents at the front of the book to make it easier for the reader to follow.

For the Second Edition we have enlisted the help of seven colleagues from the University of Washington. Dr. John A. Schilling has written a new chapter on wound healing. Another new chapter, on the alimentation of patients undergoing reoperation, focuses the surgeon's attention on what the patient can eat and what the patient should eat in connection with such procedures. More emphasis has been placed on surgical treatment in the remaining chapters, and less on prevention, because the latter is discussed in greater detail in other texts. The result is that the Second Edition contains a how-to-do-it section for almost every situation.

The main new points in the stomach chapters relate to more extensive use of

fiberoptic endoscopy and of cimetidine. There is less discussion of nutritional morbidity. The new chapters on the biliary tract take into greater account basket removal of stones and the use of ultrasound, CAT scans, octanoic acid, choledochoscopy, manometry, endoscopic cannulation of the papilla of Vater, and sphincterotomy, as well as percutaneous cholangiograms.

The chapters on the pancreas have been rewritten to reemphasize the fact that most acute pancreatitis relates to gallstones. In the chapter on pancreatitis we have placed greater emphasis on anatomy and have given more data on the operations for acute and chronic pancreatitis. In the chapter on the small and large bowel we have included new data on bleeding from angiomas of the colon, reorganized the sections on peritonitis and small and large intestinal obstruction, and discussed for the first time the surgical correction of complications of bypass operations. The sections on complications of colostomy and ileostomy have been left essentially unchanged.

We have provided a great deal of new statistical data on reoperations from Vancouver General Hospital in British Columbia and Swedish and University Hospitals in Seattle. Thus the book reflects the extensive experience of both hospital groups.

These features make this book unique and personal. To avoid duplication as much as possible, we have done all the editing ourselves, so that the book reads more as a dual-author work than as a multiple-author work. We eliminated about 75 pages from the original text and replaced them with new material, so the Second Edition is about the same length. All the illustrations have been updated or corrected as needed.

We express our appreciation to Mrs. Lin Richter and Mrs. Katharine Tsioulcas of the staff of Little, Brown and Company. We again thank Mrs. Phyllis Wood of the Department of Medical Illustration at the Uni-

versity of Washington for her new and revised illustrations. We also thank Mrs. Jean McClellan, Ms. Jessica Amanda Salmonson, and Mrs. Gladys Bealing, our secretaries, for their help. We particularly appreciate the Foreword provided us by Dr. J. Englebert Dunphy for this Second Edition.

T. T. W.
R. C. H.

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1 Indications for and Frequency of Reoperations in Gastrointestinal Surgery

Thomas Taylor White
and R. Cameron Harrison

Early Reoperations

Reoperations for complications or improper indications occur immediately after about 4 percent of primary gastrointestinal operations. The frequency of secondary, unplanned surgery of this nature is not well documented except in a few centers, and then only partially. Since mortality may be related to the surgical specialty (Table 1-1), it is probable that the complication rate will also be related to the type of surgeon. Still, we have only two groups of studies, those from the French Academy of Surgery and our own, which give the overall picture. In the French figures and ours (Table 1-2) early reoperation was required in 0.9 and 1 percent of appendectomies, 4.2 and 6.5 percent of stomach and duodenal operations, 2.4 and 1.8 percent of biliary tract and pancreas operations, 4.5 and 2 percent of small intestine operations, and 6.4 and 5.3 percent of colon and rectal operations. The rate of early reoperation is surprisingly similar in these disparate series. At the Barnes Hospital in St. Louis the reoperation rate after biliary surgery was 3.8 percent (Table 1-3), and in Ohio it was approximately 4 percent [2a, 7, 9].

A postoperative complication that requires a secondary operation calls for the best a surgeon and team have to offer: wisdom, experience, a good moral sense, and technical ability to handle a difficult situation. It is a fortunate patient whose surgeon can respond wisely to the simple but dramatic question, "Must we operate?" It is important not to let the hour pass when a reoperation should have been done; on the other hand, it is just as important not to do a reoperation that may end in a fatality. The decision to do an urgent reoperation is a difficult one to make because error may mean disaster.

Surgeons often complain about the physician's delay before he calls for help in intestinal obstruction, peritonitis, or gastrointestinal bleeding. In these instances the surgeon feels that there is a clear reason for operation without going into a great discussion. Paradoxically, the same surgeon is often late in reoperating for peritonitis, intestinal obstruction, or hemorrhage on his own postoperative patients. He should not hesitate to obtain a consultation from a trusted colleague. Every surgeon must also distinguish between the time to reoperate and the time for further nonoperative care.

The average rate for early reoperation after abdominal surgery is 2.5 percent. If one eliminates the simple appendectomies, this rate climbs to approximately 5 percent. Reoperation has, in the past, been accompanied by a high operative mortality (30 percent). The reoperative mortality rates available from various authors vary from 20 to 66 percent in the immediate postoperative period. When there are repeated reoperations,