Radiology of the Post Surgical Abdomen

John Brittenden • Damian J.M. Tolan
Editors

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Springer

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ISBN 978-1-4471-2774-1 e-ISBN 978-1-4471-2775-8
DOI 10.1007/978-1-4471-2775-8
Springer London Heidelberg New York Dordrecht

Library of Congress Control Number: 2012933966

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

To our teachers and patients.
To our wives, our children and our parents.

John and Damian

Foreword

I am very grateful to have been asked to write the Foreword for *Radiology of the Post Surgical Abdomen*, edited by John Brittenden and Damian Tolan.

Generally, I refuse when asked to do this sort of thing – writing a decent Foreword means (to me at least) that you have to read the book. That takes time so the topic just has to be interesting; it often isn't. I also think that anyone taking on the task of assembling a medical textbook in this day and age is either very brave, very foolish, or a bit of both: Books are dwindling in importance as the Internet assumes prominence for those seeking rapid answers. Books are not indexed in medical databases (so why not write a research article instead?), and – most importantly – they are a phenomenal amount of work for relatively little reward (if any).

However, when I saw the topic, I agreed immediately. For many years I worked at a hospital dedicated solely to small bowel and lower-gastrointestinal surgery. I rapidly found out (to my cost) that the cornerstone of sensible radiological diagnosis was a deep understanding of the surgical procedures undertaken, their post operative appearances, and their potential complications. Believe me, declaring the blind loop of an end-to-side anastomosis a "leak" wins you few friends and simultaneously makes you look an idiot. A few years ago I moved to a hospital that does a lot of upper gastrointestinal surgery. I will admit that I have never really taken this head on, preferring to stay within my colorectal comfort zone. Furthermore, the surgeons are rather "remote", so the opportunity for face-to-face interaction is uncommon, especially since there is no upper GI surgery MDT on our site. So, Chapters 2 and 3 of this book were the perfect opportunity to put this straight, as it was increasingly embarrassing for the Professor of Gastrointestinal Radiology to be ignorant of such matters.

And when I read them, I was struck immediately by how informative they are. I found myself straying into the other chapters very easily – everything is here, both gastrointestinal tube and solid organs. Even those retroperitoneal things that GI radiologists (and gynaecologists!) cannot avoid no matter how hard they try are included. I said above that books are a phenomenal amount of work and it really shows here: There are loads of medical images and, even better, tons of informative line diagrams of the sort you wished the surgeon had penned on the back of the request form (but never does). Some of these are really quite exquisite and a huge amount of work in themselves. The Chapter Authors are well known and can write with credibility and authority.

So, was this a phenomenal amount of work? Yes, clearly! Quite frankly, I am gob smacked at the volume of effort here. Were the Editors and their co-Authors mad to take this on? No, I think not because, for once, I do genuinely believe that this book covers a very important gap in the market. A very wise mentor of mine once described abdomino-pelvic radiology as the last bastion of "general radiology". None of us can avoid the "abdo/pelvis CT scan please", especially in the postoperative patient who is "going off" Crackerjack style (...it's Friday, it's 5 o'clock…). For those situations and others, this book is immediately useful and immensely practical. It is destined to be one of the most useful "bench books" in any department.

March 2012

Steve Halligan
Professor of Gastrointestinal Radiology
University College London

Preface

When we first commenced this project, our intention was to create a comprehensive bench book for practicing radiologists to address one of the most difficult areas of practice – 'the post surgical abdomen'. This is an area that most radiologists lack confidence in, due to the multiplicity and complexity of modern surgical procedures. However, all radiologists are expected to be able to provide imaging interpretation on such cases as part of an emergency out-of-hours imaging service.

As we developed our ideas we realized the size of the task ahead. We were extremely fortunate to be able to enlist the support and expertise of radiology and surgical colleagues in the North of England to create this volume. In it we have tried to provide a practical guide covering all abdominal procedures including detailed line drawings of post operative anatomy, which is often only properly understood by surgeons and highly specialized gastrointestinal radiologists. In addition there are tips for interpretation and techniques, both for understanding post surgical anatomy and associated complications as well as advice on how to avoid common pitfalls.

We have tried to be as thorough as possible in providing examples of normal and abnormal imaging, using all radiological modalities. These are all cases from our institutions, gathered over the last 5 years and we must thank our surgeons, radiologists and most importantly our patients for the great enjoyment and satisfaction that this work gives us.

In our day to day practice, close cooperation between surgeons and radiologists enormously benefits patients and improves their outcome from surgery. We hope that this textbook will also provide general surgeons with a better understanding of what assistance imaging and radiologists can offer to augment their clinical assessment of post operative patients: indeed this is an area that is increasingly assessed in post graduate surgery examinations.

We ourselves have learned a great deal. We would particularly like to thank our wives (Geraldine and Emma) and our children who have shown great perseverance and forbearance for the many hours we have been immersed in writing this. We hope that you find it useful and that it serves your patients well.

March 2012

John Brittenden
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List of Abbreviations

APER	Abdominoperineal excision of rectum
AR	Anterior resection
BFFE	Balanced fast field echo
ERCP	Endoscopic retrograde cholangiopancreatography
EUS	Endoscopic ultrasound
FDG	Fluorine 18 flurodeoxyglucose
FIESTA	Fast imaging employing steady state acquisition
FSE	Fast spin echo
HASTE	Half-Fourier acquisition single-shot turbo spin echo
HIDA	Hepatobiliary imino diacetic acid
HCC	Hepatocellular carcinoma
IOC	Intra operative cholangiogram
IRA	Ileorectal anastomosis
LHC	Left hemicolectomy
MIP	Maximum intensity projection
MRCP	Magnetic resonance cholangiopancreatography
PC	Proctocolectomy
PET	Positron emission tomography
RFA	Radiofrequency ablation
RHC	Right hemicolectomy
RIG	Radiological insertion of gastrostomy
STC	Subtotal colectomy
TACE	Trans catheter arterial chemoembolisation
TC	Total colectomy
True FISP	Fast imaging with steady state precession