

PRACTICAL OBSTETRIC FISTULA SURGERY

Andrew Browning AM FRCOG
Medical Director, Barbara May Foundation, Australia

Contributing Author
Brian Hancock MD FRCS FRCOG(Hon)
Honorary Consultant Surgeon,
University Hospital of South Manchester, Manchester, UK



HALSTEAD PRESS

Drawings by Alex Browning. Photographs chiefly by
Brian Hancock, Andrew Browning and Rachel Ambrose.

Sydney MMXXII
HALSTEAD PRESS

Unit 66, 89–97 Jones Street
Ultimo, New South Wales, 2007
and
Gorman House, Ainslie Avenue
Braddon, Australian Capital Territory, 2612

Copyright © 2022, Andrew Browning.
Not to be copied whole or in part without authorisation.
Designer: Natasha Powers.
Printed in Sydney by Ligare.

ISBN: 978 1 925043 71 6

CONTENTS

<i>Foreword to the Second Edition</i>	Gillian Slinger	7
<i>Preface to the Second Edition</i>		9
<i>Introduction</i>		13
1	Obstetric Fistulae: Cause and Character; the Obstetric Fistula Complex; Classification	17
2	Diagnosis	33
3	Management of Early Cases	41
4	Pre-operative Preparation	44
5	In Theatre	48
6	The Operations	57
	Basic Principles	57
	Five Basic Steps	58
	Advanced Principles	58
	Selection of Cases for the Beginner	59
	Procedure in a Simple Case	66
	Juxta-Urethral and Circumferential Fistulae	82
	Juxta- and Intra-Cervical Fistulae	98
	The Abdominal Approach	105
	Urethral Reconstruction	108
	Operative Steps to Reduce the Incidence of Stress Incontinence	113
	The Martius Fat Graft	124
	Bladder Stones	127
	Failed Repair and Re-Operation	129
	Ureteric Fistulae	134
7	Recto-Vaginal Fistulae	138
8	Repair of Anal Sphincter Injuries	148
9	Management of Post-Repair Incontinence	152
10	Management of the Inoperable Case	170
11	Post-Operative Nursing Care of the Fistula Patient	180
12	Assessment of Results	196
13	Problems, Complications and How to Get out of Trouble	199
	Appendix A: Books, Training Material and Suppliers	204
	Appendix B: Protocol for the One Hour Pad Test	208
	Appendix C: Demographic and Fistula Characteristics	209
	Acknowledgements	212
	Index	216

FOREWORD TO THE SECOND EDITION

Long before I met Dr Andrew Browning in person, I knew his name well through his multiple publications on the subject of obstetric fistula, as well as his unrivalled reputation as one of the most talented and committed fistula surgeons globally.

With our shared goal and avid determination to help women with obstetric fistula, dating back many years—Andrew, as an obstetrician-gynaecologist/expert fistula surgeon/trainer in Ethiopia, Tanzania and across Africa, and myself as a midwife/trainer/specialist advisor for obstetric fistula round the world with various international agencies—it took little time for our two worlds to converge.

Although we've each worked for a series of different institutions, we've continuously been part of the same fistula team, working together across organisations and continents to build national capacity for the prevention and treatment of obstetric fistula in affected countries and advocating tirelessly to help women with the condition.

As a master trainer, Andrew also provides expert guidance to countless other fistula surgeons, including trainee surgeons—Fellows—on the FIGO Fistula Surgery Training Initiative, for which I am Senior Project Manager. Acting as Chair of the FIGO Fistula Committee and the program's Expert Advisory Group, Andrew oversees the development and progression of over 70 FIGO Fellows in more than 20 countries, advising the project team and leading efforts to create much needed educational and training resources for fistula surgeons and care teams globally.

One such critical new resource is this book!

Building on the ground breaking publications of fistula hero, Dr Brian Hancock, Andrew has used his expertise to update and expand the original, extensively used *Practical Obstetric Fistula Surgery* book, written by Brian (with Andrew as contributing author). This new version is directed towards fistula surgeons, with key information for fistula care teams. It contains innovative new surgical techniques for vaginal reconstruction, plus management of ongoing urinary incontinence following vesico-vaginal fistula repair and reflects on progress and challenges, including the concerning rise in iatrogenic fistula cases.

Written in a clear, easy to read style, with multiple informative photos and illustrations, this much awaited second edition of the book will be an outstanding guide and constant companion to fistula surgeons and teams wherever it is used, and will undoubtedly contribute to successful treatment outcomes and recovery for women with obstetric fistula worldwide.

Gillian Slinger RN, RM, BSc, MSc
Senior Project Manager, *Fistula Surgery Training Initiative*, FIGO; Board Member,
Fistula Foundation, USA; Global Activist for *Fistula* and catalyst of the
International Day to End Obstetric Fistula.

PREFACE TO THE SECOND EDITION

Our book *Practical Obstetric Fistula Surgery* has proved popular with trainee fistula surgeons. Since publication 12 years ago there have been some significant developments. This is an opportunity to publish a new edition.

It was the lack of training material and a long learning curve that inspired me to write the first book to help others. I aimed for a book that I wished was available when I started. I have been fortunate to operate in some very well equipped conditions such as the Mercy Ships in West Africa and the Addis Ababa Fistula Hospital. In contrast, many rural hospitals where fistula surgery had never been performed had the most basic facilities. I have assisted many at their first operations so I appreciate the difficulties they face.

I was fortunate to meet Dr Andrew Browning at the Addis hospital where he started his fistula surgery, and to have worked with him on several occasions in Ethiopia, Uganda and once in Tanzania. He has been very involved in fistula surgery since 2000. He has extensive experience, first gained working as the medical director of Addis satellite unit at Bahr Dar and subsequently working in Tanzania and travelling in many African countries and to Nepal. He is in great demand as a teacher and for operating on other people's failed cases. He is one of the most skilful surgeons I have seen and committed to personal audit leading to the publication of many significant articles. His training videos are the best I have seen.

I am therefore more than happy to hand over to him as principal author. He has made some improvements to all the original chapters based on his enormous experience but the most significant addition is in the section on prevention and treatment of post-repair incontinence.

This book is above all intended as a user friendly guide for those new to fistula surgery and those who are progressing up the long learning curve.

Fistula surgery does not belong to any one specialty. We believe that anyone with good surgical skills and knowledge of pelvic anatomy, and an ability to adjust to the sub-optimal conditions found in most under resourced countries, can learn to repair the easier ones.

We strongly discourage Western specialists from making one off visits in the hope of contributing to the management of some "challenging cases" or "lending a hand". The people most able to help the fistula patients are those who work full time in Africa or other affected countries, or who make regular sustainable visits. It requires long-term commitment to learn the skills, and money to pay for free treatment, and buy sutures, catheters and good instruments. Above all it needs empathy and compassion for all that the patients have suffered.

It is a privilege to give women a new start in life using surgical skills and this has its own special rewards for the patient and the surgical team.

Brian Hancock

DEDICATION

To the memory of Doctors Reginald and Catherine Hamlin, whose work inspired so many,
and of Doctors Maura Lynch and John Kelly who remained in service to the end of their lives
and
to the patients we care for.

INTRODUCTION

There is a growing worldwide awareness of the vast number of untreated childbirth injury patients in low to middle income countries. The United Nations in its Campaign to End Fistula along with many other organisations including the International Continence Society and the International Federation of Gynecology and Obstetrics (FIGO), and many individuals are focussing on the prevention of fistulae through improved access to safe delivery services and obstetric care. These organisations also recognise the need to train more surgeons, especially in fistula affected countries. FIGO has developed an internationally recognised, standardised training program, which is expanding all the time and at the time of writing this over 70 trainees—*FIGO Fellows*—across more than 20 countries.

Nobody knows how many fistula patients there are who have been forgotten and are without hope. Estimates are up to 2,000,000, the majority of whom are in Africa and south-east Asia, but the number is difficult to determine.

Most obstetric fistula cases are still due to prolonged obstructed labour. Twenty years ago, we found that most patients had delivered at home almost always with a dead baby and severe injuries. The pattern is changing as a result of improved access to safe delivery and obstetric services in many countries. More patients get to hospital and are delivered by caesarean section. Some arrive too late to save the baby or to prevent ischaemic damage. Others have a live baby but accidental bladder damage from the operation, a so called iatrogenic injury. These accidents are all too frequent due to delayed referrals resulting in a difficult caesarean, as well as inadequate operating facilities and inexperienced doctors. There is a pressing need to train health care professionals on close monitoring during childbirth and timely referral in the case of obstructed labour, as well as for doctors to operate safely but also to better select those who do not need an operative delivery.

Fistula surgery has a justifiable reputation for being difficult but it is not always appreciated that some cases are straightforward to cure.

The most experienced surgeons say they can close 95% of fistulae (but they may have to operate on up to 10% a second or third time to achieve this figure). However closure of the fistula does not always mean the patient will be dry.

A reasonably experienced surgeon who takes on almost all the cases seen can at best probably only make 80% of cases really dry by using the methods described in this book. Of course the surgeon who turns down the difficult cases will have much better results. This explains the paradox that the better one is at repairing fistulae, the worse will be the results, because the expert rarely turns anyone away.

Without reconstructive procedures described in the book more than 20% will have severe stress incontinence because the urethra and bladder have been so badly damaged. A few may improve

in time, but those who don't will consider that the operation has failed because they continue to leak even though the fistula is closed. Secondary operations for stress are possible but have variable results.

Anyone who watches a master fistula surgeon at work will marvel at the ease with which he or she demonstrates the art of fistula surgery. Even experienced surgeons who come new to fistula surgery will be surprised at how demanding the operations are and how difficult they seem at the start. The distorted anatomy and rigidity of tissues come as a shock. One has not only to know what has to be done, but also have the skill to do it. Accurate suturing in a confined space is difficult and requires more than average manual dexterity. There is a long learning curve due to the complexity of many cases and experience can only be gained by extensive hands on work. The books available to help apprentice fistula surgeons are reviewed in the appendix; these are at present either too complex for some or lacking in specific advice to provide all the help a novice fistula surgeon requires.

Teaching fistula surgery has been a large component of our work. It is rare for us to operate without at least one serious trainee present. Having helped many surgeons perform their first fistula operations, we can see the difficulties they have and understand the advice they need. Many of our operations have been performed in hospitals that have had no prior experience of fistula surgery and this is not a bar to success.

While the text is based on our own practical experience of what works best we have been fortunate to visit or meet most of the world's small band of very experienced fistula surgeons. We are most grateful for all we have learnt from them. Many of their words of wisdom are incorporated in our advice and they are mentioned under acknowledgements.

There is no absolutely right way of repairing fistulae; there may be several routes to success as long as general principles are followed. Fistula surgery is constantly evolving as new evidence becomes available. Who would have predicted that the fat graft that for decades has been accepted as a vital component in fistula repair in the Addis Ababa Fistula Hospital would now rarely be used by many surgeons, or that techniques would be developed to reduce the incidence of post-repair stress incontinence? This has largely been due to increased communication between fistula surgeons through agencies such as the International Society of Obstetric Fistula Surgeons, with its biennial meetings.

The complexity of cases varies enormously. Depending on the context, 25% are relatively simple, whilst 50% present a variety of technical challenges, and the final 25% can be extremely challenging to cure. Specialised centres are few and far between and it is unrealistic to expect that all fistula repairs should only be performed at these centres. The complex cases should certainly be referred to established centres if possible.

We know of many instances where excellent work is done in both independent and government hospitals by interested national, expatriate or regular visiting surgeons, **provided they recognise their limitations and do not attempt cases beyond their capability.**

Nursing care is just as important as the surgery and we show how care can be simplified and adapted to local circumstances. It is the surgeon's responsibility to be familiar with and to supervise all aspects of pre-operative and post-operative care. A new book on *Nursing Care for Fistula Patients* has just been published by UCIF and FIGO, written by Ishbel Campbell and Ian Asiimwe.

We cannot over-emphasise that a fistula patient has more than just a hole in the bladder and/or rectum. The whole person is damaged by the disastrous outcome of obstructed labour. A full understanding of what the patient has suffered, her social background and future are just as important to healing as the surgery. In this manual we concentrate on the physical aspects of management as no amount of empathy for the patient is of use unless she can be relieved of her constant incontinence as a first step. For an account of the holistic approach to the fistula patient the reader is referred to the recent WHO manual described in Appendix A.

For more information go to FIGO's website:

<https://www.figo.org/what-we-do/obstetric-fistula/fistula-surgery-training-initiative>

