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## Preface

Over the past 2 decades, we witnessed rapid development in minimally invasive surgery and this has brought about significant improvement in surgical outcome. Reduction of incision-associated complications such as adhesions, surgical site infection, and incisional hernia is considered an important advantage of laparoscopic surgery.

Laparoscopic colorectal surgery started in the early 1990s and currently most colorectal resections can be performed with laparoscopy. In most cases, however, the procedure is laparoscopically assisted one and an incision is usually required to retrieve the specimen and to restore the bowel continuity.

The quest towards a more minimally invasive approach has led to the development of surgical technique to reduce the size and number of incisions. Natural orifice transluminal endoscopic surgery (NOTES) has gained tremendous enthusiasm in the last decade. However, the platform and the instruments are far from mature for general application.

Single incision laparoscopic surgery (SILS), although not a totally new concept, has emerged in recent years as an alternative to NOTES and some regard the umbilicus as a natural orifice. Nowadays, operations of different complexity can be performed using SILS and these include most colorectal procedures. SILS involves manipulation of laparoscopic instruments within a small access device and acquisition of a new set of skills is needed.

TEM was developed in 1983 by Gerhard Buess and the technique enables transanal excision of rectal lesions under direct vision. It represents both a minimally invasive and a natural orifice approach to rectal lesions. Over many years, TEM was confined to local excision of early rectal lesions. Recently with the increased interest in natural orifice surgery, the scope of TEM has been expanded to more complex operations. TEM and SILS are becoming more popular minimally invasive approaches to colorectal diseases. The skills for both techniques are similar in many aspects. Therefore, we decided to produce a book with the objective to help general and colorectal surgeons to acquire these two increasingly applied techniques.

“Single incision laparoscopic and transanal surgery” is written with the objective to introduce SILS for colorectal surgery and TEM to surgeons. It is divided into two sections. The first section concentrates on single incision laparoscopic colorectal surgery. It starts with the introduction of the instruments and skills needed for SILS. This is followed by individual colorectal procedures, from simple right colectomy to restorative proctocolectomy. The outcomes and currently available outcome data are also discussed.

In the second section, the chapters are on TEM. The indications, techniques, and outcomes of the procedures for local excision are described and the following chapters are on the advanced application of TEM.

The contributors are experts in the fields with vast experience in SILS or TEM. In this book, individual procedures are illustrated in detail and the tricks for a successful operation are described. We hope that this book can encourage surgeons with experience in laparoscopic colorectal surgery to acquire the knowledge and skills of SILS and TEM, rendering these techniques as part of their armamentarium. The book also serves as an introduction of SILS and TEM to general surgeons, surgical fellows, and residents who would like to learn these skills for their practice.

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