Preface

Management of Complex Abdominal Wall Defects

Lior Heller, M.D.¹¹ Division of Plastic Surgery, Michael E. DeBakey Department of Surgery, Baylor College of Medicine in Houston, Texas

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Ventral hernia repair is a common procedure affecting up to 11% of patients undergoing laparotomies; an estimated 250,000 procedures are done in the United States each year. Traditionally, general surgeons have done these procedures, but the need for tissue mobilization and tissue transfer has opened the door for plastic surgeons to be more involved in this field. The need for soft tissue mobilization is because the repair of abdominal wall defects requires repair of the fascia as well as soft tissue envelope defects. Plastic surgeons such as Oscar Ramirez and colleagues were the first to describe the components separation procedure for midline fascia closure, which established the role of plastic surgeons in abdominal wall reconstruction. Parallel with the improvement in the understanding of the anatomy of the abdominal wall, the development of new mesh, such as the biological mesh originated in human cadaver or porcine dermis, promoted the successful repair of challenging hernia cases, procedures which in the past were associated with high complication rates.

Given the fact that (1) almost all the cases of large ventral hernia are associated with intraabdominal adhesions, (2) in many of these patients there are intraabdominal pathologies that need to be corrected, and (3) occasionally colostomies that need to be reversed, the presence of a general surgeon is required thus making the repair of a large ventral hernia a multidisciplinary team procedure. In addition, the complexity of the patients, the need for a smooth awakening from the anesthesia without coughing, and the potential for respiratory complications during the surgery require the involvement of an experienced anesthesia team. Because many of the large ventral hernia patients may have a relative high rate of postoperative complications, an infectious disease specialist and a physical therapy team should also be available to join the multidisciplinary team involved in the management of complex abdominal wall defects.

The current volume of *Seminars in Plastic Surgery* is dedicated to the treatment of complex abdominal wall defects with a focus on the management of complex ventral

hernia. This volume has eight chapters that present the reader with the different angles and steps that need to be considered when treating a patient with a complex abdominal wall defect. The subjects approached include the general considerations associated with the type of the defect, the intraabdominal pathologies, and the timing of the repair that needs to be considered when planning the surgery. Additional points include techniques to repair large midline defects and different aspects associated with the anesthesia for the above procedures. One chapter is dedicated to the description of the most common flaps used for abdominal wall reconstruction and another chapter focuses on defects located in the lateral aspect of the abdominal wall. Although this volume is meant to provide solutions to complex problems, the chapters are accessible to surgeons who are not operating routinely on these types of cases, general practitioners, residents, and students so that they may become familiar with this subject. Through this issue of *Seminars in Plastic Surgery*, we hope caregivers at all levels will better understand and provide better treatment of patients with complex abdominal wall defects.

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Address for correspondence and reprint requests Lior Heller, M.D., Associate Professor, Division of Plastic Surgery, Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Medical Building, 1977 Butler Blvd., Suite E6.100, Houston, TX 77030 (e-mail: lheller@bcm.edu).

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