Recent Trends in Reconstruction of Anterior Abdominal Wall Defects

Essay

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Mina I. Ibrahim

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List of abbreviations:

ALT	**Anterolateral thigh flap**
AW-VCA	**Abdominal Wall Vascularized Composite Allotransplant**
ASIS	**Anterior superior iliac spine**
CST	**Component Separation Technique**
CT	**Computed Tomography**
MICST	**Minimally invasive component separation technique**
MRI	**Magnetic resonance imaging**
PTFE	**Poly Tetra Fluro Ethylene**
SSIs	**Surgical site infections**
SSO	**Surgical site occurrence**
TE	**Tissue Expansion**
TFL	**Tensor Fascia Latae**
TLAWR	**Totally laparoscopic abdominal wall reconstruction**
US	**Ultrasonography**
VAC	**Vacuum Assisted Closure**
VCA	**Vascularized Composite Allotransplant**

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INTRODUCTION

Abdominal wall defects can result from trauma, excision of abdominal wall tumors, necrotizing infections to abdominal wall components, or complications of previous surgeries to the abdomen. The abdominal wall provides protection and serves as a container for the abdominal viscera, in addition to several other functions, most importantly: maintaining the upright posture, supporting the trunk, and assisting in generation of Valsalva maneuver that helps in coughing, urination and defecation. Apart from cosmetic point of view, reconstruction of these defects is to minimize their strong functional impact on the patients' quality of life. ***(Hutan et al., 2014).***

A defect in the abdominal wall exists when one or more components are missing. The fascia and muscles are the most important parts of the abdominal wall as they provide support and function, while the skin provides protection to the inner layers. ***(Leppäniemi and Tukiainen, 2013).***

There are different causes of abdominal wall defects either congenital or acquired. ***(Loadsman, 2004).***

The congenital causes can be divided into either herniation of abdominal contents at the umbilicus as