

ABDOMINAL CLOSURE

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One of the most challenging parts of a multivisceral/intestinal transplant is achieving abdominal closure. Multiple previous laparotomies and enterocutaneous fistulae can result in a rigid abdominal wall and loss of the abdominal domain. Many techniques to achieve primary closure under these circumstances have been developed. These include preoperative tissue expansion, the use of biological meshes and plastic surgery techniques (e.g. vascularised pedicle flaps). Transplantation allows novel techniques to be used, including transplantation of part or all of the abdominal wall from a donor. The rectus sheath from the donor can be used as a non-vascularised sheet of fascia. Prior to implantation the muscle and fat are removed from the rectus abdominis graft, leaving the fascial and peritoneal components. This can then be used as a biological 'mesh'. Unlike other biological mesh it vascularises rapidly. Skin coverage is achieved by mobilisation of the recipient's skin and subcutaneous tissues, although rarely a skin graft is needed. Vascularised abdominal wall grafts can also be used where the anterior abdominal wall with its overlying subcutaneous fat and skin is transplanted using the inferior epigastric arteries and veins as the vascular inflow and outflow.

Figure 91.5 Intraoperative picture following exenteration. Intraoperative

photograph of a multivisceral block (stomach, liver, small bowel, pancreas and colon) following reperfusion.

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