

harvested from the left iliac crest. The patient complained of a left flank bulge and pain. Physical examination revealed the presence of a hernia over the left iliac crest that extended to the lateral abdominal wall. Computerized tomography with contrast confirmed a large bowel herniation through the left lateral abdominal wall in the region of the iliac bone resection. There was no evidence of bowel obstruction (Fig. 1). With the patient under general anesthesia, a transverse incision was made over the hernia and the external oblique muscle was identified as covering the hernia sac. A defect 7-cm in diameter was found through the transversalis and internal oblique muscles contiguous to the iliac crest defect. The hernia sac was reduced and the defect was repaired with a large, oval Kugel mesh strip (Davol Inc., Cranston, R.I.). The mesh was placed in the preperitoneal space overlapping the iliac bone and the lateral abdominal muscles around the hernia defect. The patient was free of symptoms and there was no recurrence during a 4-month follow-up.

The lumbar area is confined by the twelfth rib, iliac crest, and erector spinae and external oblique muscles. Hernias of the lumbar region are rare but have been reported to occur after trauma, flank surgery, iliac bone grafting, spontaneously, or as a result of a congenital abnormality of musculoskeletal development. In a series of 59 iliac bone grafts, herniation through the donor site occurred in 5 percent of patients.³ The onset of herniation symptoms ranges from 1 month to 15 years after the procedure.⁴ The iliac crest osseous defect provides a rigid ring against which repeated elevations in abdominal pressure can result in disruption of soft tissue and herniation of abdominal contents.⁵ The contents of the hernia may be retroperitoneal fat, kidney, small or large bowel, and spleen. Volvulus with bowel strangulation has been reported.⁶ Computerized tomography reveals the anatomic relationships in this region and is the only radiographic procedure required for an accurate diagnosis.^{5,7} Furthermore, it can be helpful in the assessment of symptomatic patients after flank incision, to differentiate postincisional muscular weakness and intercostal neuralgia from a lumbar hernia.⁷ Repair with synthetic mesh is recommended by most authors.^{3,8} This potential complication can be prevented with the harvest of only a split inner cortex iliac bone graft, thus eliminating abdominal wall weakness and hernia and improving postoperative pelvic contour. If a full-thickness bone graft

is harvested, precise and careful closure should follow to prevent herniation. The iliacus muscle and fascia should be securely attached with sutures to the transversalis fascia and muscle. Both external and internal muscles should be sutured to the tensor fasciae latae and gluteal muscles. Repair of the inguinal ligament is necessary if it has been divided.

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COLLAGEN SHEETS AS TEMPORARY WOUND COVER IN MAJOR OPEN FRACTURES BEFORE DEFINITIVE FLAP COVER

Sir:

In major open fractures with soft-tissue loss and radical débridement, skeletal stabilization followed by early flap cover is the standard line of management. The goal of the reconstructive surgeon is to keep the interval between wound débridement and flap cover as short as possible. In some



FIG. 1. Computerized tomography with contrast revealed a large bowel herniation in the region of iliac bone resection.