RECURRENT INCISIONAL HERNIA REPAIR WITH BIOLOGIC MESH COMPLICATED BY DELAYED URINARY LEAK

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Introduction: Biological mesh has been used in clean-contaminated and contaminated fields. While it has been reported to have higher recurrence rates and poor incorporation into native tissue in comparison to synthetic mesh, currently there is no consensus on mesh-preservation treatment in cases of mesh infection after hernia repair.

Case: 72-year-old male with prior radical cystectomy and neobladder creation complicated by neobladder-cutaneous fistula and wound infection requiring revisional surgery and incisional hernia repair with mesh at the time.

He developed a 20 cm long by 14 cm wide recurrent incisional hernia and underwent open hernia repair with bilateral anterior component separation, extensive lysis of adhesions, removal of prior mesh and placement of a biologic mesh (Strattice™ RTM) in the retrorectus space, with reinforcement of the anterior fascial closure with an onlay piece of biologic mesh.

Postoperatively he was treated for neobladder infection and CT cystogram found no extravasation from the neobladder. He presented to the emergency department 6 weeks after surgery with spontaneous partial midline wound dehiscence, with exposure of the onlay mesh and drainage of clear fluid, which was confirmed to be urine by fluid creatinine level. Repeat CT scan demonstrated a filling defect at the anterior wall of the neobladder with contrast leaking into a contained collection interposed between the anterior abdominal wall and the underlay mesh, extending superiorly between the small bowel loops and dehiscence of the midline abdominal skin.

He was hemodynamically stable without evidence of sepsis and was treated with antibiotics, indwelling Foley catheter and bilateral nephrostomy tubes for urine diversion. Three months later, CT cystogram demonstrated resolution of the leak. The nephrostomy tubes and Foley catheter were removed. The patient has continued wound care with significant reduction in size of the midline wound and increasing granulation tissue around the onlay mesh. He has not required further admissions to hospital and there has been no hernia recurrence more than one year later.

Conclusion: In the appropriate setting, contaminated biologic mesh after surgery may be treated with supportive management, avoiding the need for surgery and mesh explantation.



Initial view of wound, with exposure of onlay piece of mesh



Wound with granulation tissue over onlay mesh and smaller defect

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