

Case Study Report

Reinforcement of Ventral Hernia with Gentrix[®] Surgical Matrix Thick Following Failure of Onlay Repair with Porcine Acellular Dermal Matrix

Age: 66 **Sex:** Male **BMI:** 30

Comorbidities: Asthma, type II diabetes mellitus, hypertension

Procedure Used: Recurrent ventral hernia repair with bilateral component separation and graft placement

ACell[®] Product(s) Used: Gentrix Surgical Matrix Thick (20 cm x 25 cm)

Outcome: No recurrence at 12 months

Clinical Presentation and Case Background

A 66-year-old male patient with a history of recurrent ventral hernia (two previous repairs), asthma, type II diabetes mellitus, and hypertension presented to the clinic with lateral side pain. Two years prior, the patient had been treated for recurrent ventral hernia repair at which point Strattice[™] (Allergan[™]), a porcine Acellular Dermal Matrix (ADM), was placed in an onlay fashion to reinforce the defect. Six months after the ADM was placed, the repair appeared to be intact (Figure 1).



Figure 1. Six months after onlay repair with Strattice.

Two years following ADM implantation, a CT scan was performed and the patient was diagnosed with recurrent ventral hernia of the upper abdomen with a large defect protruding into the abdominal wall in the mid-upper abdomen (Figure 2). A second, smaller defect was later observed intraoperatively, but does not appear on the scan.

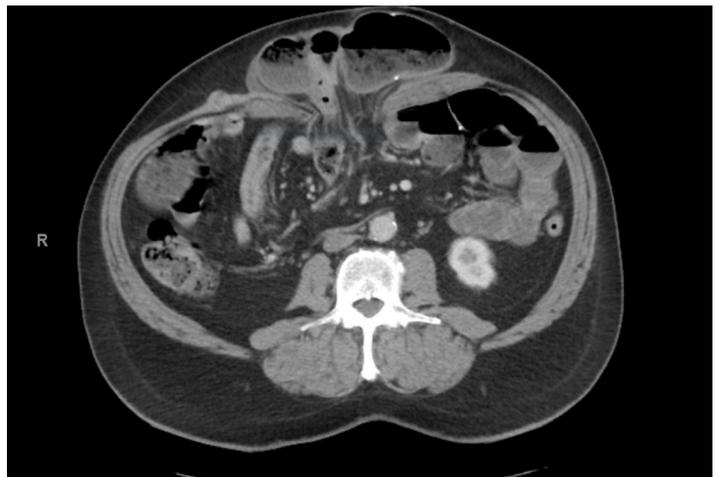


Figure 2. Two years after onlay repair with Strattice, complete failure of mesh with evidence of herniation of bowel.

Management of Ventral Hernia

The patient underwent a retro-rectus repair with bilateral myocutaneous flap creation and xenograft (Urinary Bladder Matrix) reinforcement. During the procedure, the ventral defects were found to be approximately 10 cm x 5 cm and 3 cm x 5 cm. A posterior component separation was performed bilaterally to create myocutaneous flaps, separating the transverse abdominis muscles from the external obliques. The posterior fascia was closed with 0 Vicryl and 1-0 Vicryl figure-eight stitches. The defect was reinforced with a 20 cm x 25 cm Gentrix Surgical Matrix Thick device. The device was trimmed to the appropriate size by the surgeon and secured with circumferential stitches.

Outcome of Management and Follow-up

The patient experienced resolution of pain symptoms following ventral hernia repair. At 6 months post-op, a subcutaneous seroma was drained using interventional

radiology (Figure 3). The surgeon noted the seroma was not related to the Gentryx device. At 12 months post-op, the repair remains intact with no patient reported symptoms of recurrence (Figure 4).

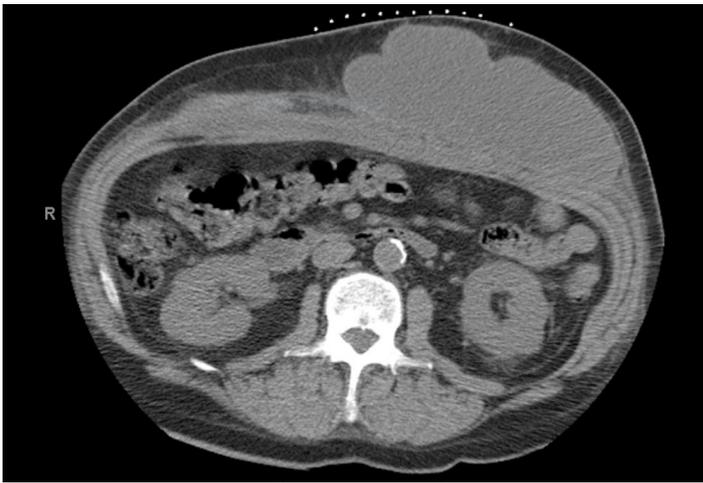


Figure 3. Six months after explant of Strattice and repair with Gentryx Surgical Matrix Thick, seroma found in subcutaneous tissue was not related to graft reinforcement. The seroma was easily drained percutaneously. No further complications observed.

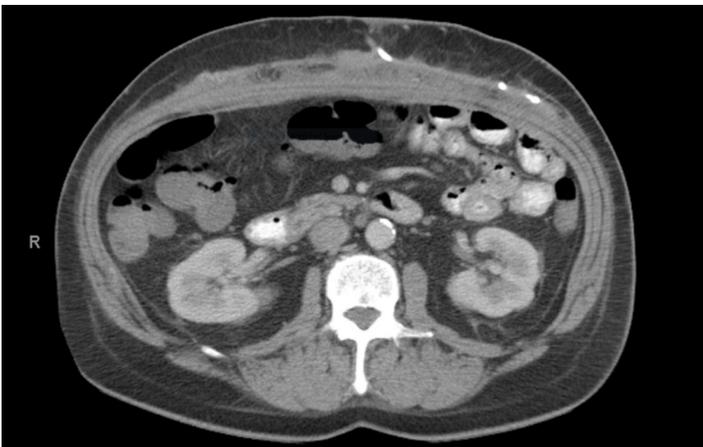


Figure 4. Twelve months after repair with Gentryx Surgical Matrix Thick, retro-rectus repair remains intact with no signs of hernia recurrence.

Why this Patient was a Candidate for ACell Product

In the physician's opinion, the patient was an ideal candidate for Gentryx Surgical Matrix Thick reinforcement of ventral hernia repair due to the complex (Grade 3) nature of the ventral hernia. The patient presented with several comorbidities, previous recurrent hernias, and complications related to calcification of the previously implanted Strattice graft. The complex clinical situation meant that a biologically-derived device may be preferred. Gentryx Surgical Matrix, in particular, was selected because of its ability to facilitate a host response that results in biomechanically functional tissue remodeling, which may aid in the prevention of a subsequent recurrence.

ACell Product Summary

A single 20 cm x 25 cm Gentryx Surgical Matrix Thick device was trimmed into the appropriate shape by the physician.

Source

This case was performed by Alvaro Garcia, MD, at an urban non-teaching hospital in Florida, USA. Dr. Garcia is a board certified surgeon.



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Note: The data presented here contain the opinions of and personal techniques practiced by the treating physician(s). The techniques presented herein are for informational purposes only. The decision of which techniques to use in a particular clinical application lies with the treating physician(s) based on patient profile, particular circumstances surrounding the procedure, and previous clinical experiences.

Note: The Gentryx Surgical Matrix family of devices are composed of a porcine-derived extracellular matrix, also known as urinary bladder matrix. The devices are supplied in multi-layer sheet configurations (including 3-Layer, 6-Layer, & 8-Layer) in sizes up to 30 cm x 40 cm. Gentryx Surgical Matrix Thick is intended for implantation to reinforce soft tissue where weakness exists in patients requiring gastroenterological or plastic & reconstructive surgery. Reinforcement of soft tissue within gastroenterological and plastic & reconstructive surgery includes, but is not limited to, the following procedures: hernia and body wall repair, colon and rectal prolapse repair, tissue repair, and esophageal repair.