



NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS

2018 RESIDENTS' NIGHT ABSTRACT

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Title: *Bovine Acellular Dermal Matrix (SurgiMend®) for Complex Abdominal Wall Reconstruction: A Cost Analysis and Outcomes Study*

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PURPOSE: Complex abdominal wall reconstruction with components separation and the use of acellular dermal matrix (ADM) is required in selected patients. The most common bioprosthesis mesh used for this procedure is the porcine acellular dermal matrix (Strattice®). The use of Bovine acellular dermal matrix (SurgiMend®) has not been well defined in complex abdominal wall reconstruction. The authors want to confirm if the use of SurgiMend® has comparable outcomes at a significantly less cost when compared to Strattice®.

METHODS: A retrospective chart review was performed of all patients who underwent complex abdominal wall reconstruction for ventral hernia repair with component separations and the use of SurgiMend® mesh between 2010 and 2014 by the senior author. Patient demographics, surgical and clinical outcomes were reviewed and assessed. Results were then compared to published literature of similar patients who required the same procedure but with the most common ADM Strattice®. In addition, the hospital cost of the SurgiMend® mesh used in each case was compared to the cost of an equivalently sized piece of Strattice® mesh.

RESULTS: Fifty-eight patients were identified during this period who underwent components separation with the use of SurgiMend®. The minimum Post-operative follow up time was twelve months. Seven cases of wound infections were identified (12.1%). Postoperative partial wound dehiscence without mesh exposure was seen in seven cases (12.1%). There were two cases of hematoma (3.4%) and three recurrences (5.2%). These results were compared to published literature of comparable cases in which Strattice® mesh was used for the reinforcement of the complex repair. The results of our study confirm that SurgiMend® surgical outcomes are comparable to those described in the literature for Strattice®. The cost of a centimeter squared of each of the ADMs was obtained from our institution (SurgiMend® \$22 Vs. Strattice® \$24). We then calculated the mean cost of SurgiMend® mesh used in all fifty-eight cases and compared it to the mean cost of equivalently sized Strattice® mesh. The cost for the SurgiMend® was calculated to be \$12,342.8 ± 366.1 (SEM) which was significantly less than the cost for Strattice® at \$13,425.7 ± 392.3 (SEM) (p = 0.0459).

CONCLUSIONS: In patients requiring complex abdominal wall reconstruction with components separations and the use of acellular dermal matrix mesh, both SurgiMend® and Strattice® appear to have comparable surgical and clinical outcomes based on previous published literature and our study results. SurgiMend® should be considered as a safe, cost effective option for complex abdominal wall reconstruction.