

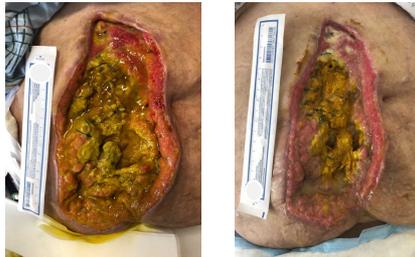
Background

- Enteroatmospheric Fistula (EAF) or exposed fistulas occur in an open abdomen with no overlying soft tissue.²
- Few alternatives for strategic wound care around an abdominal fistula exist outside of use of Negative-Pressure Wound Therapy with isolation of fistulized stoma, stenting and topical management includes wound pouching. Less than 30% of fistula will heal spontaneously. ¹
- Extracellular Matrix dressings, specifically Urinary Bladder Matrix (UBM) are successfully used for healing of full thickness wounds and extracellular matrix enterocutaneous fistula plugs (ECMFP) have been placed within the fistula tract to provide a scaffold that promotes healing. ^{1,2}

In the following three case studies, UBM was applied within EAF wounds as a novel practice and pouched with goals of inciting wound healing and creating a more manageable pouching surface.

Case Study I

65-year-old female with a history of strangulated bowel and high output EAF with two failed repair surgeries. UBM applied for 3 weeks within wound resulted in significant decrease in fistula activity.



3.1.19

3.8.19



3.29.19

4.19.19

Case Study II

58-year-old female with a history of progressive ovarian cancer and bowel obstruction resulting in colostomy and high output EAF. UBM applied for 4 weeks resulted in significant decrease in fistula activity even with tumor growth.



9.11.19

9.20.19



10.8.19

12.11.19

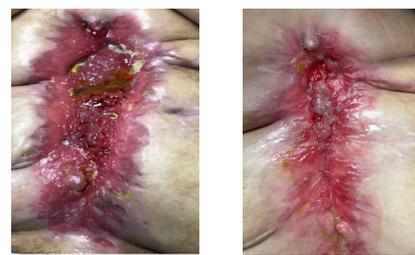
Case Study III

56-year-old female with history of multiple abdominal surgeries and prior fistulae. Post-surgical recurrence of two fistulae. UBM applied for 5 weeks resulted in significant wound healing and closure of gastric fistula.



3.15.22

3.25.22



4.19.22

7.27.22

Conclusion

The application of UBM Extracellular Matrix within EAF abdominal wounds resulted in wound healing and assisted in the spontaneous closure of three out of four high output fistulae. This practice is a novel use of UBM for fistula wounds and more research is indicated to establish standardization of UBM application for EAF management.

References

- Huang, J., Ren, H., Jiang, Y., Wu, X., & Ren, J. (2021). Technique Advances in Enteroatmospheric Fistula Isolation After Open Abdomen: A Review and Outlook. *Frontiers in surgery*, 7, 559443. <https://doi.org/10.3389/fsurg.2020.559443>
- Stein, S.L (2020). Enterocutaneous and Enteroatmospheric Fistulas. *UpToDate*. Retrieved October 17, 2022, from <https://www.uptodate.com/contents/enterocutaneous-and-enteroatmospheric-fistulas/print>

For more information, please contact: Erin Testerman Mitra at ERT9022@NYP.ORG