

## Mitigation of the Consequences of Seroma Formation in Open Ventral Hernia Repair Using ECM Powder

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### **Abstract:**

Seroma formation after surgical procedures is a common postoperative complication observed in a variety of surgeries, including breast surgery, abdominal surgery, hernia repair, and plastic surgery. The development of seroma in the context of open ventral hernia repair, especially in the high-risk categories, has been shown to contribute to persistent morbidity and jeopardize the integrity of the repair altogether. Thus, prevention and mitigation of the negative consequences of seroma must be prospectively evaluated to ensure optimal outcomes when undertaking ventral hernia repair. The incidence of seroma formation in patients undergoing ventral hernia repair is variable and reported at rates ranging from 0.5–78% after laparoscopic repair, and 30–50% after open repair. Surgical drains, pressure dressings and negative pressure wound therapy are just a few of the therapies utilized by surgeons in an attempt to prevent seroma formation with mixed results. Here we look at the benefits of incorporating a Multi-Tissue Platform (MTP) Wound Powder during the closure of complex open ventral hernia repairs. Our early experience using XCelliStem wound powder has revealed a promising trend, as we have seen a reduction in seroma and seroma-related complications from 49% to 16%. In conclusion, we recommend the consideration of a MTP to be included in the closure of complex ventral hernia repairs, as well as other operations at high risk for seroma formation.