

Thrombin Gel Matrix As A Novel Treatment For Lymphatic Fistula After Inguinal Approach In Minimally Invasive Cardiovascular Surgery

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Background

Postoperative lymphatic leakage is a rare but well-known phenomenon after inguinal approach in minimally invasive cardiovascular surgery. Although it is usually not severe, it generally increases pain, hospital stay, and the risk of dehiscence and surgical site infections. Thrombin gel matrix has been used in prevention but has not been reported for treatment. We describe its use for effective closure of a lymphatic fistula.

Methods

A 78-year-old female underwent thoracic endoprosthesis via right transfemoral approach and femoro-popliteal bypass. 26 days later, she presented with lymphorrhagia. AngioCT showed a lymphocele and fistula (Fig. 1A). After 10 days of conservative care, 5 ml of thrombin gel matrix was applied through the fistula into the lymphocele (Fig. 2)..

Results

Lymphorrhagia ceased within 24 hours. VAC therapy began on day 3. Complete healing occurred 33 days after the thrombin application (Fig. 3). At 6-month follow-up, the patient is asymptomatic and shows no signs of fistula or lymphocele on the control angioCT scan (Fig. 1 B).

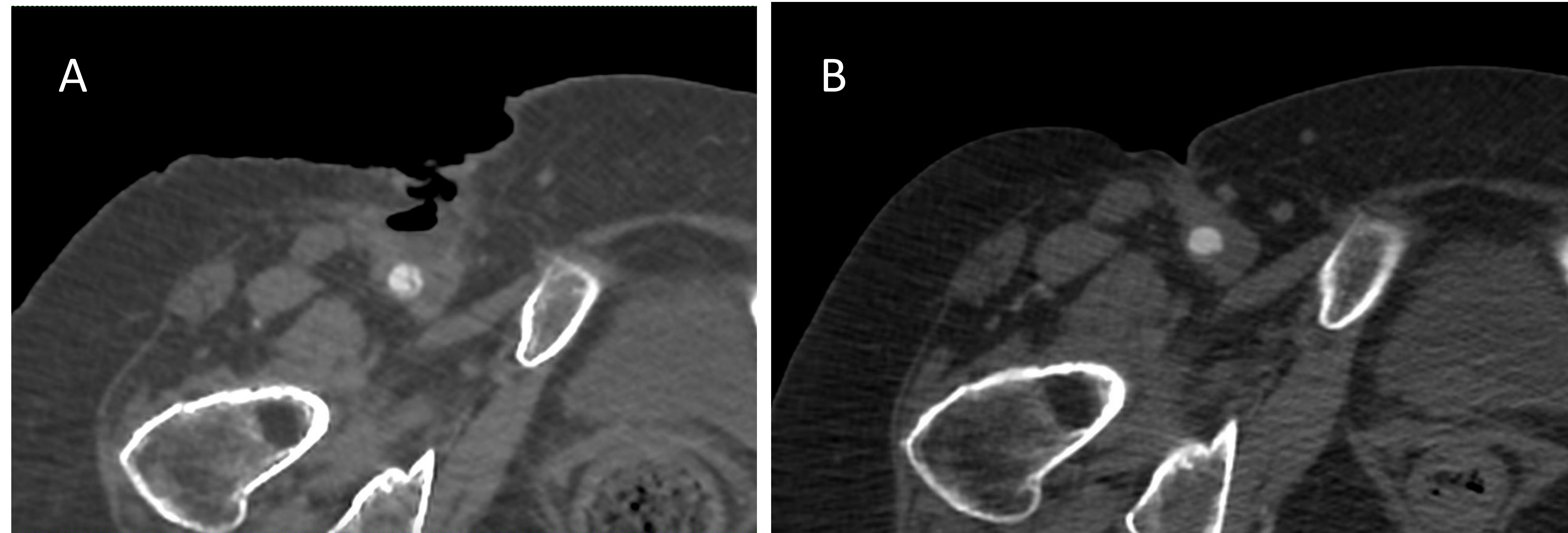


Fig1: A) Lymphatic fistula and lymphocele; B) After treatment

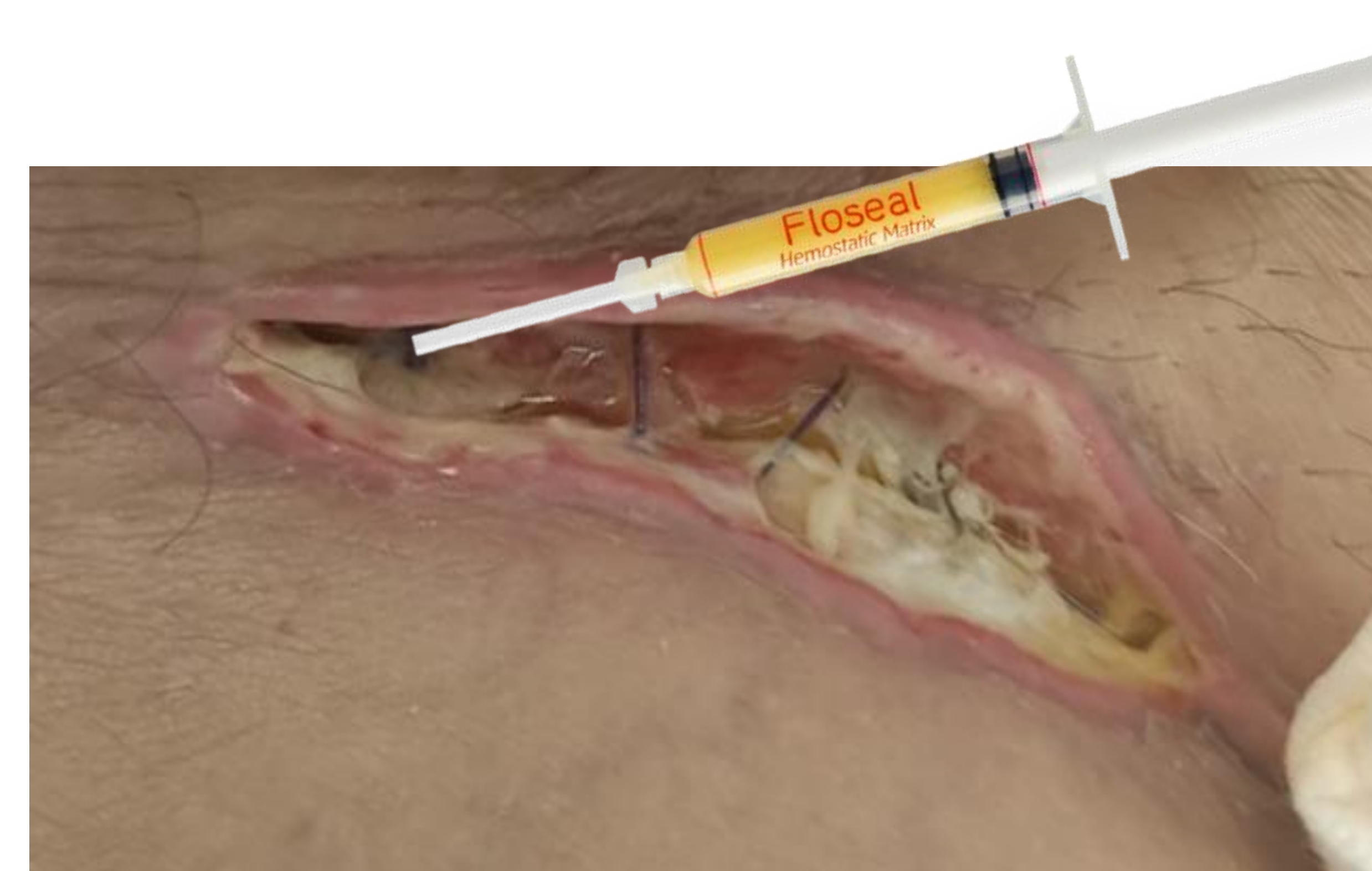


Fig2: Applying the thrombin gel matrix



Fig3: Wound completely healed

Conclusions

- *This first reported use of thrombin gel matrix to treat a lymphatic fistula with lymphocele yielded successful healing without reoperation.*
- *Further studies are needed to confirm safety and efficacy.*



References

Lv S, Wang Q, Zhao W, Han L, Wang Q, Batchu N, et al. A review of the postoperative leakage. Oncotarget. 2017;8(40):69062–69075.



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