Dermal Matrix In Late Tenorraphy



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Abstract

MATRIDERM is a three-dimensional dermal matrix, composed of acellular bovine collagen fibers, which is used as a dermal substitute in several clinical situations, particularly in thirddegree burns, and in this case report, as a cover for a tenorrhaphy, aiming to prevent adhesions in the postoperative period.

Introduction

Clinical case

- Adhesions are one of the main causes of loss of function after tendon surgeries.
- Prevent these adhesions after surgical repair, especially late, is the biggest challenge in tendon reconstructive surgery.
- The objective of this report is to analyze the result of using the MATRIDERM® dermal matrix, in preventing adhesions formation in the postoperative period of tenorrhaphy.

Figure 3 – Tenorrhaphy of the deep flexor tendon was performed



Figure 4 – Intraoperative: tendon was wrapped with the MATRIDERM® dermal matrix, 1 mm thick

Discussion and Conclusion

- Tendon ruptures, especially in the hand, when not treated properly, lead to significant functional impairments. Adhesions continue to be the most frequent postoperative complication.
- Early tenorrhaphy is the standard treatment and is performed immediately after the trauma. In the case in question, 5 months
- Female patient, 54 years old, with a history of injury to the left 5th finger four months ago.
- She was treated at the Health Unit one day after the trauma: skin suture, antibiotic therapy and dressing care.



Figure 1 – Preoperative - On physical examination: scar on the volar surface of the 5th left finger, over the proximal interphalangeal joint. The superficial and deep flexor tendons were without function.

 The magnetic resonance imaging showed a total rupture of the deep flexor tendon and partial rupture of the superficial tendon.



 MATRIDERM[®], a dermal regeneration matrix, was developed to improve the functional and aesthetic results of complex skin defects, such as burns, hypertrophic scars, scar retractions, congenital lesions, skin tumor resections, traumatic skin losses and venous ulcers. However, its current use, has been expanded to tendon repair surgeries (2,3) as a barrier against adhesions, thanks to its structure and properties of natural collagen, without chemical crosslinking.



Figure 2 – The patient underwent surgical treatment: tenolysis with identification of the proximal and distal stumps of the deep flexor tendon



Figure 5 – Late postoperative period: Patient six months after surgery with preserved function and complete flexion of the distal an proximal interphalangeal joints

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The authors declare no conflict of interest

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