

DYNAVISC®

Adhesion Barrier Gel
for Tendon and Peripheral Nerve Surgery

CASE REPORT

Dupuytren Disease

Patient had flexion contracture on four fingers of right hand.



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Case Introduction

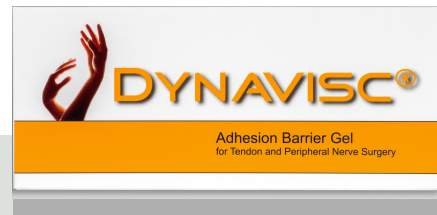
Two years prior, the patient had a fibromatous nodule resected. Since then, the fifth and fourth fingers have shown worsening fibromatosis, and the second and fourth fingers now have the appearance of cords.

Case Presentation



Physical Examination of the Right Hand found:

- Dupuytren Disease affecting the 5th, 4th, 3rd, and 2nd fingers.
- 5th finger - PIP with minus 70° of extension
- 4th finger - PIP with minus 45° of extension
- 3rd finger - PIP with minus 30° of extension
- 2nd finger - PIP with minus 20° of extension
- No other finding on clinical examination

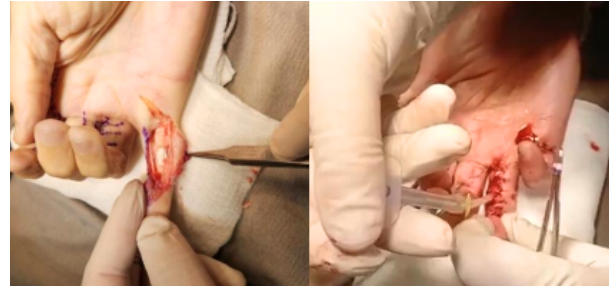


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Operative Approach

During the planned complete fasciectomy of all four fingers, an extensive cord was found reaching from the MP joint to the DIP joint, resulting in a longer-than-expected procedure.



First surgery on 4th and 5th fingers.



Application of Dynavisc.

The fifth finger showed a slow reperfusion time after tourniquet removal, raising concerns of reapplying a tourniquet and continuing the surgery, thus, surgery on the second and third fingers was postponed. Dynavisc® Adhesion Barrier Gel (FzioMed, San Luis Obispo, CA) was then applied to the 4th and 5th fingers, surrounding all the flexor tendons and digital neurovascular bundles exposed in the procedure.

The healing of the skin and recovery of function were excellent after the first surgery, with the patient displaying an excellent immediate range of motion only days after surgery.



Three days post op showing 4th and 5th fingers that received Dynavisc.

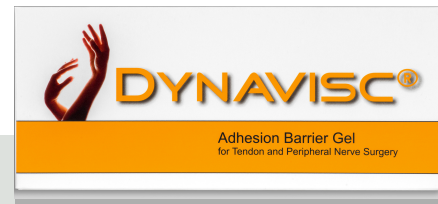
Second Surgery



Skin necrosis on the 2nd and 3rd fingers.



Eight weeks after the first surgery, the second step of the surgical treatment was performed on the 2nd and 3rd fingers with no complications. A different antifibrous product was used. Unfortunately, the skin healing had vascular complications, resulting in skin necrosis.



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Second Surgery

The wound was managed using hyperbaric oxygen therapy, followed by surgical debridement. Platelet-enriched plasma (PEP) was used on the wound area and borders, and closed using a polyethylene sterile membrane.



Third surgery for debridement, PEP, plastic coverage.

Follow-up

Four weeks after the last procedure, the wound showed complete healing with full extension and flexion of all fingers. No pain and no neurovascular damage was present resulting in return of overall function of his hand.



Final result and function approximately six months after the first surgery.

Discussion

The use of Dynavisc Adhesion Barrier Gel provided an improved result for the patient in terms of functional recovery and pain relief.