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Case Report

Limited palmar fasciectomy for bilateral Dupuytren's contracture

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ABSTRACT

Dupuytren's disease is a fibro-proliferative condition affecting the palmar and digital fascia. This disease is very common in Northern Europe but in India it uncommon as there are only a few cases reported, hence also called as 'Viking Disease'. Surgical fasciectomy is the standard surgical treatment of choice for Dupuytren's disease. Complications following surgery are high but there is no definitive cure for Dupuytren disease (DD), and recurrence of finger contractures after treatment is common.

Keywords: Bilateral, Dupuytren's contracture, Palmar fascia, Fasciectomy

INTRODUCTION

Dupuytren's disease is one of the fibro-proliferative conditions affecting the palmar and digital fascia which eventually leads to contracture where cords of diseased palmar fascia extend to the digits causing limited function and range of motion.[1,2] It involves both hands with equal frequency and is usually more severe in one hand.[3] The ring finger is most frequently involved, followed by the little finger.[4] Release or removal of the diseased cord with consequent finger extension can be achieved by surgical and invasive nonsurgical modalities.[5,6] Though surgery is the treatment of choice, the incidence of recurrences are high.

CASE REPORT

57 year old male presented to our department with difficulty in using both the hands since 8 months. Patient was apparently normal 1 year ago after which he developed tightness of the left palm followed by the right palm. The patient was a manual labourer by occupation with no exposure to any vibrating tools. There was no history of any co-morbid illnesses. On examination of the left hand, there was a flexion contracture of the metacarpophalangeal joints of the ring and little fingers, whereas the right hand had only the contracture involving the little finger.

Figure 1: Involvement of both hands.

The table-top test was positive. There were also thickening of the palmar fascia with cords and nodules of the ring and little fingers. (Figure 1) A clinical diagnosis of Dupuytren's contracture was made and planned for limited palmar fasciectomy. Under supraclavicular block and tourniquet control, a Brunner's incision made along with a palmar crease incision. Contracted palmar fascia exposed and excised in toto. (Figure 2,3) Full extension of PIP joint of left ring and little finger was achieved. Carpal tunnel release was also done. Incision closed with 3-0 nylon. Compression bulky dressing applied. Post-operative period was uneventful with full extension achieved. (Figure 4)

Figure 2: Pre-operative marking of incisions.

Figure 3: Thickened palmar fascia as cords.

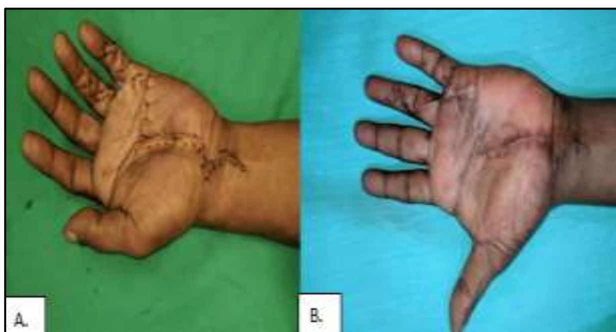

Figure 4: Early (A) and late (B) post-operative images.

DISCUSSION

This disease has been known to the medical fraternity for over 200 years, but it was in 1831 when Dupuytren described the disease of the palmar fascia and suggested open fasciotomy as the treatment.[7-9] The prevalence of this disease in the western population is upto 30%. Dupuytren disease (DD) is a common benign disorder of the hand usually asymptomatic but can present with soft tissue changes in the palm, eventually leading to contractures.[1-4] The Hueston's table-top test helps with the diagnosis where the patient is unable to place the hand flat on a table top.[10] A recent systematic review and meta-analysis concerning the prevalence of DD in the adult general population of Western countries suggested a prevalence of up to 30%.[6] Although DD most often has a benign clinical presentation with minor, usually asymptomatic, soft-tissue changes in the palm, a large number of patients seek healthcare for the disease and many undergo treatment for finger contractures.[9] In a study by Khan et al patients were categorized into 3 stages, Stage I is presence of a thickened nodule and band in the palmar aponeurosis and often associated with skin puckering, stage II is stage I plus limitation of extension and stage III is stage II plus flexion contracture.[11] Surgical fasciectomy is a documented effective treatment method, but complications such as digital neurovascular injury and wound-related problems are common.[8-12] Limited fasciectomy (LF) has proven to be curative and effective and most commonly performed of the surgical interventions.[12] Denkler et al reported that the limited fasciectomy technique has the lowest recurrence rate out of all surgical and non-surgical methods and is currently the most popular technique used.[12] If the patient has a high risk of recurrence with a strong Dupuytren's diathesis, dermofasciectomy should be considered and it is important that the graft be placed from mid-lateral line to mid-lateral line, else, there is a risk of contracture. If there is postoperative skin flap loss, the senior author recommends conservative management with dressings as most wounds will re-epithelialize within 4 weeks.[13] Collagenase injection is considered a safe treatment method that is associated with few serious adverse events, now commonly used for recurrent cases with good short term results.[14]

CONCLUSION

Dupuytren's contracture is a late complication of Dupuytren's disease where the palmar and digital fasciae are affected. Early diagnosis and treatment is the key to tackle this disease. There are many options available, but limited fasciectomy is an effective treatment method for especially for metacarpophalangeal joint contractures, where full correction achievable in both the short and long term periods.

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