Dupuytren’s Contracture in the Black Population: A Case Report and Review of the Literature

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A case report of a 34-year-old black man with Dupuytren’s contracture of his left small finger and review of the literature of Dupuytren’s disease in the black population is presented. A high incidence of trauma (54%) was associated with these cases. (J Hand Surg 1996;21A:898–899.)

Dupuytren’s disease is a fibroproliferative reaction of unknown etiology involving the palmar aponeurosis and fascial structures of the fingers. Predominantly affecting persons of Celtic or Scandinavian origin, it is rare in African countries, with only a few documented cases of Dupuytren’s disease in the black population. It is associated with an autosomal dominant (variable penetrance) pattern of inheritance. Dupuytren’s disease has been associated with other disease processes including alcoholism, diabetes mellitus, and epilepsy. The presentation of Dupuytren’s contracture in a black patient seen in our clinic, with none of the above risk factors, prompted a review of the literature.

Case Report

A 34-year-old left-handed black man (Fig. 1) presented with a painless nodule in his palm and a proximal interphalangeal (PIP) joint contracture of the left small finger. The patient sustained a metacarpal neck fracture (Fig. 2) of the small finger 1 year prior to the appearance of the nodule in his palm. There was no knowledge of any interracial marriage: His medical history was negative for diabetes, epilepsy, and alcoholism. There was no family history of Dupuytren’s disease. Physical examination revealed involvement of his small and ring fingers with Dupuytren’s disease. A 55° flexion contracture of the PIP joint of the small finger was present. Examination of the ring finger revealed a 20° flexion contracture of the metacarpophalangeal (MP) joint. No knuckle pads, Peyronie’s disease, or Ledderhosen disease was noted on examination. An uncomplicated regional fasciectomy was performed. Intraoperative findings revealed pretendinous cords to the ring and small fingers and a central cord to the small finger. Histopathologic examination was consistent with palmar fibromatosis. At the 6-month follow-up examination, the patient had full flexion and extension of the previously involved digits.

Discussion

McFarlane, in his epidemiologic study involving 1,150 surgical patients, reported Dupuytren’s disease in 5 black African and 9 black American patients. The largest series reported to date was presented by Mitra and Goldstein. In their series, 8 black patients with an average age of 57 were found to

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have Dupuytren's disease. Bilateral hand involvement was seen in 5 patients. Three patients reported a history of trauma.

In 1986, Mennen reported 6 black patients with Dupuytren's contracture. The importance of this series was the establishment of Dupuytren's disease in the black population through genotyping.

In the third largest series to date, Muguti and Appelt reported their findings in 4 indigenous black Zimbabweans. There were 3 men and one woman in this series. There was a history of trauma in 3 patients. Bilateral hand involvement was seen in 2 patients. None had a family history of the disease.

Including our case, there are 47 reported cases in the literature of Dupuytren's disease in the black population. Although this disease is a rare entity in the black population, its predisposing factors and clinical presentation is similar to that seen in white populations. A high incidence of trauma (54%) was noted in the 13 most recent cases reported in the literature over the last 3 years.

References