Case Reports

Dupuytren's Contractures in a Black Patient

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Dupuytren's contracture, the mysterious palmar fibrosis originally described by Plàter [1] (1641) and Cooper [2] (1822) but named after Baron Dupuytren [3] (1834), has long appeared to be a disease of caucasians. Hence, previous population studies have dealt with either European stock or their descendants.[4-9]

After the appearance of a black male patient with bilateral Dupuytren's contractures at the hand clinic of the Veterans Hospital in Miami, a search of the literature was undertaken to determine the incidence of this disease in the black race. In the previously published large population studies there is mention of only 5 apparently black patients with Dupuytren's contracture.[6,14]

The observations of Kanavel, Koch, and Mason,[10] Moorehead,[11] and Hueston and Tubiana [12] prompted this review and case presentation.

In spite of the marked tendency to superficial fibrosis tissue formation seen in the colored races, we have not seen a case of Dupuytren's contracture except in members of the white race.[10]

For over 20 years I was a surgeon at the Harlem Hospital Division of Bellevue and Allied Hospital group. In that period, with an increasing large Negro clientele, I cannot recall any patient of that racial origin with this lesion (Dupuytren's contracture).[11]

. . . European disease, being so rarely seen in non-caucasian races as to make suspect the purity of racial descent of any such individual afflicted.[12]

CASE REPORT

A 66-year-old black male was born in Decatur County, Georgia. Employed most of his life as a construction and sanitation worker, he noted the bilateral onset of fifth finger contractures two years after his retirement in 1972. There was no history of alcoholism or liver disease, but one year after the onset of the contractures he was hospitalized for an episode of seizures; he was treated transiently with Dilantin * and phenobarbital.

Two years after the onset of the contractures, he was noted to have active pulmonary tuberculosis, and he was successfully treated for this with ethambutal and isoniazid.

Both his parents and his grandparents were residents of Georgia, with no history of interracial marriages.† The patient stated that he was the twelfth of 14 children, and the only one in his family afflicted with any hand disorder.

On November 23, 1977, under regional anesthesia, a modified McCash [13] fasciectomy, with a volar capsulectomy of the proximal interphalangeal joint of the fifth finger, was performed on the right hand with excellent results. The pathology report was ". . . diffuse fibrosis—consistent with Dupuytren's contracture. . ." He is now awaiting surgical correction of his left hand (Fig. 1).

DISCUSSION

Etiologically, Dupuytren's contracture appears to be a diverse disease. There is little doubt that there is a form of Dupuytren's contracture that can be transmitted genetically, as a simple autosomal dominant trait with variable penetrance.[15-18] This phenomenon has even been followed in a family for 7 consecutive generations.[19] The appearance of Dupuytren's contracture in our patient may represent a genetically isolated event. In addition, perhaps the presence of cer-

* Phenytoin sodium, Parke, Davis & Co., Detroit

† *Editorial note.* Our editors thought this case would be of interest to readers, especially because surgeons with extensive experience in hand surgery in non-caucasians (in central parts of Africa or Japan, for example) have reported seeing no Dupuytren's contractures. Obviously, one must be cautious about drawing genetic conclusions from a family history that goes back only two generations, through 6 individuals.

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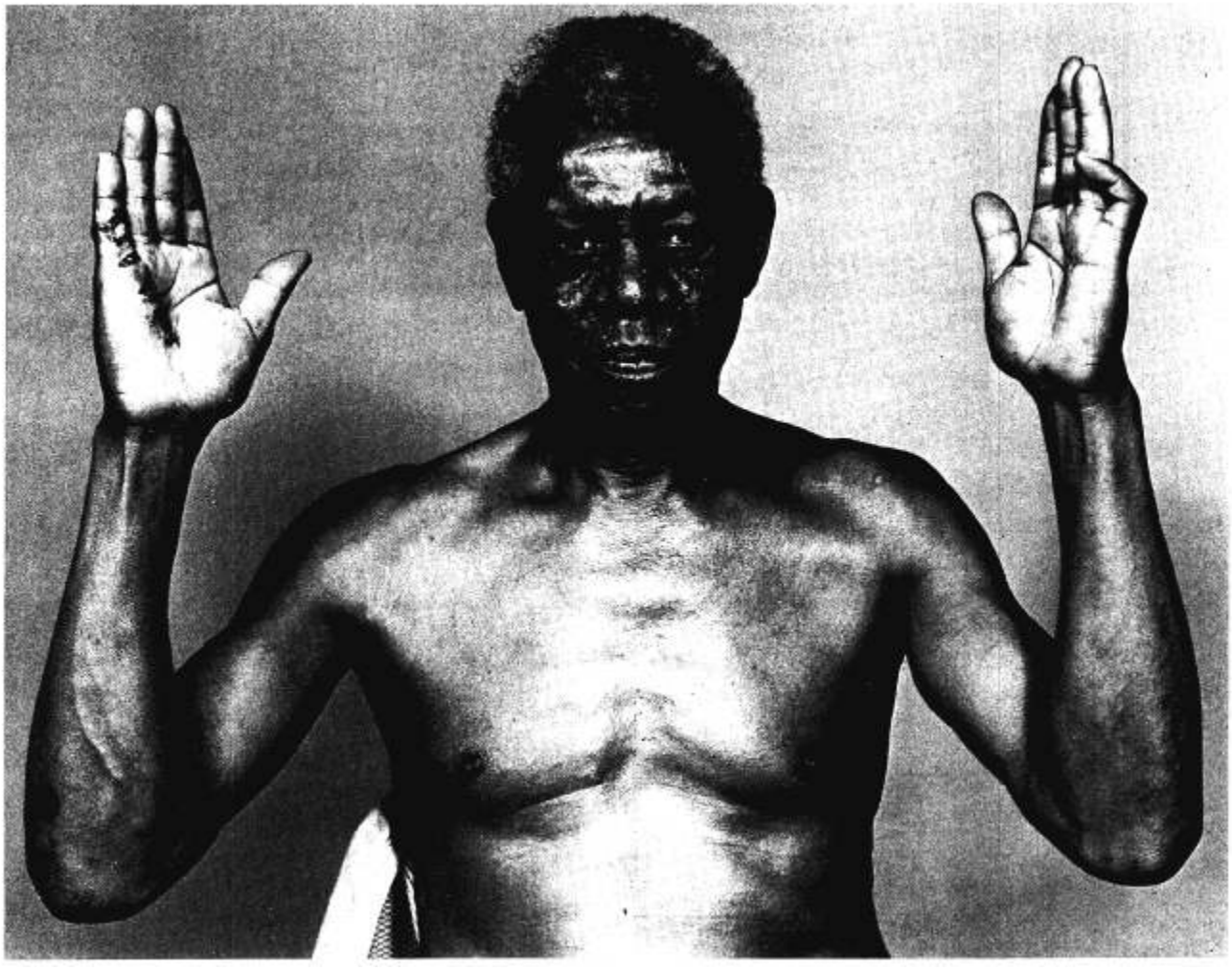

FIG. 1. One week after surgical correction of Dupuytren's contracture of the right hand. Note the contracture in the left hand.

tain extrinsic factors could modify the response in a genetically susceptible patient.

The association with occupation was first fostered by Baron Dupuytren.[3] Subsequent studies have discounted the theory that heavy labor is a significant cause of Dupuytren's contracture, and it now appears that inactivity of the upper extremities may be more of a contributory factor.[7]

The relationship of Dupuytren's contracture to certain medical disorders (chronic alcoholism, epilepsy, and chronic pulmonary disease) has also been documented extensively. Alcohol abuse and liver disease are probably the best known of these.[14,20,21] Our patient gave no history of these. Liver function studies done during hospital stays prior to the noted onset of his Dupuytren's contracture, as well as after, did not show any abnormalities.

Skoog [4] was the first to note the increased incidence of Dupuytren's contracture in epileptic patients. It seems difficult to label our patient as an epileptic, as he has had only one unverified episode of a "seizure," and he has not needed maintenance anti-convulsant therapy. However, a relationship between Dupuytren's contracture and epilepsy has been shown,[22] and perhaps this is significant in our case.

The incidence of chronic pulmonary disease, especially tuberculosis, has been noted to be increased in patients with Dupuytren's contracture,[6,15,19] and our patient had clinically demonstrable active tuberculosis two years after the onset of his Dupuytren's contracture. He also

reported that a brother had been successfully treated for tuberculosis in Louisiana in the early 1960s.

SUMMARY

We report a case of bilateral Dupuytren's contracture occurring in a black patient, apparently the sixth reported occurrence.

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