

## AINHUM IN SUPERNUMERY FINGERS

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A case of ainhum occurring in supernumerary fingers bilaterally in a thirteen year old girl is presented.

**Key Words :** Ainhum, Supernumerary fingers

### Introduction

The term *Ainhum* is derived from a word in the *Nagos* language of East Africa meaning "to saw".<sup>1</sup> Ainhum is a slowly progressive fibrous constriction involving usually the plantar fold of the 5th toe. The cause is unknown but Browne considers that over production of fibrous tissue in response to repeated infection or injury in persons with a tendency to keloid formation is a major factor.<sup>2</sup> Impaired blood supply has been postulated as there was attenuation of posterior tibial artery and absence of the plantar arterial arch leading to poor perfusion that predisposed the toe to mechanical trauma. The disorder is more common in blacks and found in tropical climate.

The presenting symptom in early stages may be a painful fissure, starting on the medial aspect of the plantar surface. Later the digit is dorsiflexed at the metatarso phalangeal joint, then turns to a claw toe, eventually hangs and finally amputated. This condition has to be differentiated from pseudo ainhum which is characterized by constrictive bands that are congenital or related to other disorders.<sup>3</sup>

Polydactyly means extra digits and this condition is classified as preaxial, central or post axial. Post axial polydactyly involves duplication of the ulnar border of the hand.

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Post axial polydactyly is the most common type of polydactyly, occurring 8 times more commonly than preaxial and central polydactyly. In blacks, the incidence of post axial supernumerary fingers is 1 per 300 live births compared with 1 per 3000 in whites. In blacks post axial supernumerary finger is an autosomal dominant inherited trait and occurs as an isolated anomaly. In other races, a wide spectrum of associated congenital anomalies occur in conjunction with post axial polydactyly.<sup>4</sup>

### Case Report

A 13-year-old girl presented with constriction and painful swelling of the left sixth finger (Fig.1). The onset was preceded by trauma due to beating. There had been progressive constriction of the finger followed by distal dilation. There was no history of ulceration. She had similar process which led

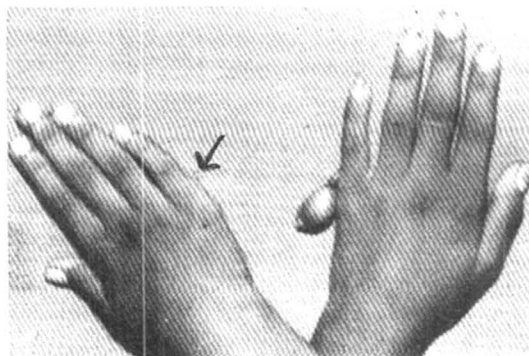


Fig. 1. Shows the constriction and swelling of the 6th finger of the left hand. Arrow indicates the remains of auto amputated 6th finger of the right hand.

to auto amputation of right 6th finger. Family history was not contributory.

On examination, the left 6th finger showed constriction band at the region of meta carpo phalangeal joint. The distal digit was swollen and hanging. There was no ulceration or nail dystrophy. The right hand showed a small soft tissue remnant of the 6th finger. There was no other cutaneous or systemic abnormal finding. Skiagrams of the hands were not taken as the patient was not willing for the same. Patient was advised to attend plastic surgery department for surgical management.

### Comments

Though Ainhum has been reported to be nearly always affecting the 5th toe, our case had it on the 6th finger bilaterally though not simultaneously. The occurrence of ainhum bilaterally in supernumerary fingers has not been reported in the literature so far to the best of our knowledge. Racial predisposition may be a causative factor in our case, as both post axial

polydactyly and ainhum are common in blacks.<sup>2,4</sup> The other factors probably a reduced vascular supply to the 6th finger and a tendency for increased fibroplasia secondary to trauma also may be responsible for the development of ainhum in present case.

### References

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