

NONLEPROTIC CONTRACTURE OF THE FINGERS

In a leprosy survey of the eastern border districts of Basutoland, Dr. R. C. Germond observed 34 persons in which there was slight retraction of the fourth or fifth fingers of one or both hands [THE JOURNAL 6 (1938) 303-314]. There being neither local anesthesia nor ulnar thickening, he did not consider the condition due to leprosy. Some of the peoples among whom it was found wear tight heavy bangles, but the changes were not suggestive of Dupuytren's contracture.

In large-scale examinations for leprosy one occasionally meets with individuals with contractures of the ulnar fingers, without skin lesions or other evidence of the disease. If there is definite muscular atrophy, weakness and anesthesia, there can be little doubt as to the cause of the abnormality. Occasionally, however, especially when the condition has existed for many years, there may be no anesthesia and the person may deny that there ever was any. In that event it may be impossible definitely to diagnose the condition. Believing that it would be of interest, we asked Dr. Germond how the changes seen in his cases could be explained. He replied as follows:

Concerning the 34 cases of finger retraction, to which I am now able to add a dozen or so observed during my last survey, I am not of the opinion that this condition is due to leprosy. It is probably occupational, as will be explained presently.

The condition closely resembles the so-called "hammer toe." It is usually limited to the little finger of one or both hands, very rarely involving the fourth finger. It consists of a contracture of the first interphalangeal joint alone, with marked prominence of the knuckle and without palpable thickening of the bone. The deformity is much more striking on the dorsal side of the hand and sometimes barely apparent on the volar aspect where the "gulf" is bridged by the retracted tendons. There are no signs of neural involvement, no anesthesia, no wasting, no skin changes and no nerve enlargement. As already pointed out, palmar retraction is conspicuous for its absence.

Concerning the etiology, one intelligent patient assured me that it was

a form of ainhum, but the opinion is untenable. I have so far never observed the deformity in men or children. The women themselves ascribe it to one of two occupations: (a) The frequent use of the sickle in cutting hay or thatching-grass. If this were the case the deformity should also be found in men and should be common in many other countries. (b) Grinding of corn by the old-fashioned native method, which is the same as that used by the ancient Egyptians. The grain is placed on a slab of sandstone, the upper surface of which has been carefully roughened, and crushed between it and a cylindrical stone rounded at both ends. The backward and forward movement of the cylinder is combined with rotation on its own axis. The woman operates in the kneeling position and grips the stone at the ends. It is easy to understand how, in the long run, the last finger or two may become "crisped." The little finger is of course more liable to cramp in this position. This seems to be the most probable origin of the common deformity mentioned in my paper. It is interesting to note that the last case admitted to the asylum, a recurrence, classed as L2(i), presented this feature to a marked degree although there were no signs of neural involvement. The reason why all native women do not develop this deformity would be found in individual variations in the manner of grasping the grinding stone.
