Medical Memoranda

Carpal Tunnel Syndrome Presenting as a Complete Median-nerve Palsy with Trophic Changes

Brit. med. J., 1967, 1, 32

The clinical features of carpal tunnel syndrome are well known, and have been fully described by many authors. Physical signs are few, and the diagnosis rests mainly on the characteristic history. Weakness of the abductor pollicis (Garland, Sumner, and Clark, 1963), thenar atrophy, and impaired sensation (Phalen, 1966; Cseuz, Thomas, Lambert, Love, and Lipscombe, 1966) are the usual physical signs. These are present in only about half the cases seen. The following case is of interest.

CASE REPORT

A woman aged 77 was referred to the surgical outpatient clinic because of a burn of her finger which would not heal. She stated that the right thumb and index and middle fingers had "had no feeling" for over two years. She had never complained of paraesthesia or disturbed nights. One year previously a burn of the index finger had taken many weeks to heal and had resulted in loss of the end of the finger.

An ulcer was present on the terminal segment of the middle finger, with open infection of the terminal interphalangeal joint. The flexor tendon was visible in the wound. In the hand there was complete anaesthesia of median distribution, with marked wasting of the thenar eminence (Fig. 1). The wrist was thickened and movement grossly limited. X-ray examination showed severe hypertrophic arthritis. There was no history of previous injury. On complete physical examination no evidence of central nervous disease was found.

Operative exploration of the median nerve at the wrist was undertaken. Evidence of gross nerve compression by the proximal edge of the carpal ligament was observed (Fig. 2), and the terminal segment of the middle finger was amputated. Both wounds healed by first intention.

Eight months after operation sensation was returning to the affected fingers. The patient reported great improvement in her ability to use the hand. The wasting of the thenar eminence was appreciably less (Fig. 3). Active thumb abduction was power 3+.

DISCUSSION

I can find no previous report of a case of carpal tunnel syndrome presenting with such advanced signs of median paralysis. The patient was the type who would ignore symptoms, and one year before she was first seen had refused to go to hospital for advice about her hand. An alternative diagnosis of syringomyelia was at first considered, but there was no supporting evidence of this. Subsequent events confirmed the diagnosis of median-nerve palsy due to compression in the carpal tunnel. Narrowing of the tunnel due to the hypertrophic arthritis of the wrist was the main cause in this case.

I am grateful to Mr. A. V. Pollock, who referred this case to me.

A. G. QUINLAN, M.B., B.S., F.R.C.S.,
Consultant Orthopaedic Surgeon, Scarborough Hospital
Group, Scarborough, Yorkshire.

REFERENCES

- Cseuz, K. A., Thomas, J. E., Lambert, E. H., Love, J. G., and Lipscomb, P. R. (1966). *Mayo Clin. Proc.*, 41, 232.
Garland, H., Sumner, D., and Clark, J. M. P. (1963). *Brit. med. J.*, 1, 581.
Phalen, G. S. (1966). *J. Bone Jt Surg.*, 48A, 211.

FIG. 1

FIG. 2

FIG. 3

FIG. 1.—Appearance of the right hand when first seen. FIG. 2.—At operation. Constriction of the median nerve is obvious. (Membrane placed behind nerve for photographic purposes.) FIG. 3.—The hand eight months after operation.