Correspondence

Delayed rupture of the thumb extensor tendon

Sir—In the article "Delayed rupture of the thumb extensor tendon, a 5-year study of 18 consecutive cases", Hove (1994) reports nearly complete satisfaction after tendon transfer for extensor pollicis longus rupture, with which we concur. He concludes that all patients were able to raise their thumbs to the level of the palm. In a recent similar study (Noorda and Hage 1994), we found different results. On the basis of Geldmacher's (1986) evaluation scheme for assessment of the results of extensor tendon reconstruction our patients scored less favourably, especially with regard to raising the thumb to the plane of the hand. The mean score for thumb elevation in our series was 1.6 out of 6 points, corresponding to a lag of 2.1–3 cm when compared with the opposite thumb. This accords with the findings of Magnussen et al. (1990). Unlike Hove and Magnussen et al. (1990) we found no flexion deficit. Hove further concludes that full index extension was achieved either when all fingers were extended simultaneously (dependent) or when the remaining fingers were flexed (independent). In a recent study (Noorda et al. 1994), we reviewed the long-term morbidity of the donor index finger following extensor indicis proprius transfer. An extension lag of the donor index was found in 71 percent. Hove admitted that, in spite of achieving full extension, a few patients had to use more force than on the contralateral side when extending the index finger independently. We observed a significantly reduced extension strength of the donor index finger in all patients, whether measured dependently or independently. In spite of these results we, like Hove and like Littler (1967), feel that the extensor lag is not caused by the removal of the force of the motor per se. The integrity of the dorsal hood and noninterference with intrinsic or extrinsic tendon amplitude is of utmost importance. For this reason, we gratefully acknowledge that an alternative method should be considered for patients in whom individual extension of the index finger is of importance.

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Sir—Drs. Noorda and Hage raise 3 interesting points. Firstly, they are frustrated about the discrepancy between the patient's subjective evaluation of the results of the operations and the objective measurements only. However, most patients are very satisfied with the results of these operations (Nigst and Linder 1989, Hirasawa et al. 1990, Magnussen et al. 1990, Hove 1994, Noorda and Hage 1994), and it is suggested that additional functional tests, convertible into score points, may give a more realistic evaluation than measurements only

Secondly, problems with either thumb extension or flexion depend on the degree of tension when suturing the extensor indicis proprius tendon to the distal stump of the extensor pollicis longus. As recommended by Schneider and Rosenstein (1983), the transfers in our series (Hove 1994) were woven into the extensor mechanism under sufficient tension to keep the thumb extended at all joints, with the wrist in 50 degrees of extension. In the series studied by Hirasawa et al. (1990), a slight extension lag was observed in 1 case in which the transfer was done with the thumb not in full abduction and extension. Like Hirasawa et al. (1990) and Riddell (1963), I feel that the transfer should be tight enough to give full thumb extension and that immobilization in this position will give the best results. A tight transfer is better than a loose one. However, this may result in some loss of thumb flexion, which is not considered a functional handicap (Schneider and Rosenstein 1983, Magnussen et al. 1990).

Finally, in the series reported by Noorda and Hage (Noorda et al. 1994), an extension lag of the donor index was found in 71 percent. In our series and in several previous reports no index extension lag was found (Browne et al. 1979, Schneider and Rosenstein 1983, Russell Moore et al. 1987, Hirasawa et al. 1990, Magnussen et al. 1990, Hove 1994). Most of the postoperative difficulty of extensor indicis proprius transfer centers around the repair of the extensor mechanism. The optimal technique for harvest of the proprius tendon is controversial. I prefer a minimal incision proximal to the sagittal hood; the tendon is transected obliquely; no sutures are used to secure the distal stump to the adjacent communis tendon; and the index finger is permitted free active mobility immediately postoperatively. In skilled hands, this technique may reduce scarring and problems associated with a too tight repair of the extensor mechanism which were the commonest factors responsible for index extension lag in the clinical and laboratory studies of Browne et al. (1979). The reduced extension strength reported seldom causes any functional loss. Strength is, in most cases, not necessary for good function (Magnussen et al. 1990).

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