

and dermofasciectomy. Its main advantage is in making the visualization and dissection of the neurovascular bundle more straightforward, and limiting the amount of unnecessary and time-consuming dissection of diseased fascia. Caveats exist for recurrent disease in that the thin retrovascular plane may not exist due to previous scar formation or extensive retrovascular disease.

A number of patho-anatomical observations underlie the logic of this surgical approach. Firstly, the diseased fascia is predominantly palmar to the neurovascular bundle. Therefore a surgical plane deep to the neurovascular bundle should encounter little or no diseased tissue between nerve and flexor tendon sheath. Once the diseased tissue is turned over, the retrovascular surface is exposed and an easy plane of dissection through thin Cleland's ligaments is possible. The retrovascular cord of Thomine, a cause of DIP joint contracture, is rarely encountered but must always be considered in this dissection (Thomine, 1974). Secondly, however convoluted the course of the neurovascular bundle, it always remains outside of the flexor sheath. Thus dissecting across the sheath itself poses no danger. The fascial attachments to the flexor sheath are relatively constant (McFarlane, 1974) and the common mode of attachment of all types of cords was via Grayson's ligament on to the middle phalanx, and this is readily identified with our approach. Thirdly, digital disease in Dupuytren's contracture is unilateral in 84% (Strickland and Bassett, 1985) and thus the disease can be approached from the less affected side, after safely seeing and dissecting out the neurovascular bundle on the less affected side.

The advantages of this technique are three-fold. First and foremost, a retrovascular exposure allows access to the neurovascular bundle via the thinnest plane of dissection which is easy and atraumatic. This also allows visualization of the neurovascular bundle along its entire length. Secondly, the risk of damage to the neurovascular bundle by excessive blunt axial dissection through thick cords of disease is reduced. Thirdly, the exposure permits identification of retrovascular disease which can then be appropriately managed.

Conflict of interests

None declared.

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A modified towel test for assessment of elbow flexion in children less than 9 months old with brachial plexus birth palsy

Dear Sir,

The assessment of upper extremity motor power in infants with brachial plexus birth palsy is difficult for clinicians. The decision to explore the brachial plexus in birth palsy is still mainly based on clinical findings. Recovery of elbow flexion has been considered as one of the important features to guide decision making for surgical exploration or intervention in brachial plexus birth palsies. Many surgeons regard the absence of elbow flexion at 3-9 months as one of the important criteria in their decision to operate. Assessment of elbow flexion in an infant is not always easy and many techniques have been used. These include reviewing hand-to-mouth action, active range of movement and use of the Medical Research Council (MRC) grading and its modifications. The 'Cookie Test' has been validated as an assessment tool for children older than 9 months (Borschel and Clarke, 2009; Curtis et al., 2002). This is done by placing a lightweight cookie in the child's hand and allowing the child to attempt elbow flexion sufficient to bring the cookie to the mouth without flexing the neck beyond 45°. The cookie test is passed if the child is able to reach the mouth with the cookie. Difficulty arises in assessing elbow flexion in children younger than 9 months as it is difficult to assess power and active range of motion accurately.

Bertelli and Ghizoni (2004) described the use of the 'towel test' in the assessment of infants with brachial