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Letter to the editor

Letter to Editor regarding "Comparison between single portal endoscopic and 1-cm open carpal tunnel release": Could the 1-cm open carpal tunnel release surgery miss space-occupying lesions?

Lettre à la rédaction concernant l'article « Comparaison entre la libération du nerf médian au canal carpien endoscopique à une voie et la libération ouverte mini-invasive » : une ouverture du canal carpien sur 1 cm n'omettra-t-elle pas les lésions expansives ?

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Dear Editor-in-Chief,

We read with great interest the recent original article by Martinez-Catasus et al. "Comparison between single portal endoscopic and 1-cm open carpal tunnel release" published in *Hand Surgery and Rehabilitation* [1]. The authors compared single portal endoscopic and 1-cm open carpal tunnel release for the treatment of carpal tunnel syndrome (CTS). The single portal endoscopic surgery was performed with a single endoscopic portal through a transverse incision on the volar side of the wrist, which was located 1 cm proximal to the pisiform and the palmaris brevis tendon [1]. The open surgery was performed with a less than 1-cm long longitudinal mini-incision between the thenar and hypothenar eminences [1]. The clinical evaluation showed excellent outcomes in patients of both groups at more than 12 months' follow-up.

Although most patients with CTS are idiopathic, there are systemic or local factors resulting in CTS. Space-occupying lesions are an example of these local factors and have been reported in a few studies describing masses, tenosynovitis and tophaceous gout [2,3,4,5]. Chen et al. [6] reported that 23 patients had space-occupying lesions out of 779 patients who underwent surgery for CTS. The masses and lesions that increased the content of the canal included ganglion cyst, lipoma, epidermal cyst, fibroma of tendon sheath, tenosynovitis, chronic synovitis and gouty tophus [6]. These patients also presented with typical symptoms of median nerve injury such as nocturnal pain, tingling, numbness and thenar muscle atrophy. These lesions can only be detected when magnetic resonance imaging (MRI) or ultrasonography is performed preoperatively. For these patients, the transverse carpal ligament should be opened, and the space-occupying lesion should be removed. In the publication by Martinez-Catasus, the CTS diagnosis was based solely on clinical examination (pain, paresthesia and numbness) and electromyogram, without MRI or ultrasonography [1]. The single-portal endoscopic release may be able to detect space-occupying lesions when they are located beside the median nerve during the surgery, and open surgery may be necessary to completely remove these lesions. However, a longitudinal mini-incision that does not exceed 1 cm in open surgery cannot detect space-occupying lesions located beside or under the median nerve. The authors used a cannulated probe to support the scalpel first distally and then proximally. Therefore, there is a substantial chance of missing any space-occupying lesions.

In our clinical practice, we make an approximately 2-cm long incision (Fig. 1), open the transverse carpal ligament and look specifically for space-occupying lesions. Our experience indicates this 2-cm incision is large enough to release the median nerve and explore any space-occupying lesions. If preoperative MRI or ultrasonography revealed no space-occupying lesions, the exploration step may not be necessary. Therefore, we suggest that preoperative MRI or ultrasonography be conducted to ensure there are no space-occupying lesions before performing the 1-cm open carpal tunnel release. Otherwise, there is a greater chance of

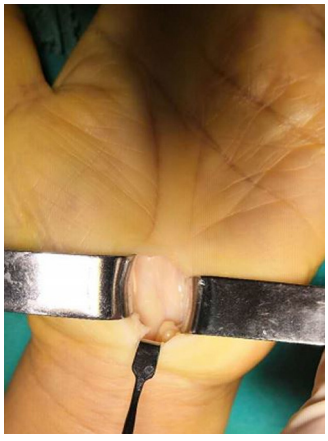

Fig. 1. Intraoperative photograph after an approximately 2-cm incision has been created. With help of retractors, the transverse carpal ligament can be opened easily, and any space-occupying lesions can be explored and removed.

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missing these space-occupying lesions with the 1-cm open carpal tunnel release surgery.

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Disclosure of interest

The authors declare that they have no competing interest.

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