

Hyper-elastic fibrous tissue disorder is a risk factor for development of multiple retro-peritoneal and pelvic compression syndromes and for recurrences after surgery

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INTRODUCTION

Due to lack of fibrous connective tissue stability lordogenetic compressions of the celiac trunk (MALS), the duodenum (SMAS), the left renal vein (Nutcracker =NCS) and the pelvic veins MAY-THURNER Syndrome (predominantly the left Common iliac vein) may possibly develop (RPCS=retroperitoneal and pelvic compression syndromes). These can cause severe pain and dysfunction of organs in the abdomen and in the pelvis and of the spinal cord due to circulatory disturbance.

OBJECTIVES

The most often reported RPCS have been described as a consequence of local anatomical pathology only. With rising numbers of cases and operating an increasing number of recurrences we suspected an underlying fibrous connective tissue disorder.

METHODS

In a partly retro/ prospective study we analysed 116 patients (90 females, 26 male, mean age 29.9 yrs) admitted for decompression surgery (Mono-compression 28 {MALS 21, SMAS 2, NCS 3, MTS 2} Multi-compressions 88).

There were 82 primary and 34 secondary surgeries, 28 were admitted from other institutions, most often for recurrent MALS most often after laparoscopic approach for MALS (13) and for recurrent NCS (12) after insertion of one or two stents.

All patients had undergone extensive gastroenterological diagnostic measures, which did not explain the complaints. Functional and morphometric duplex ultrasound examination at various body positions was performed, which could demonstrate the compression and more than 95% of the patients had been examined by imaging techniques (CTA, MRA), despite the fact that Duplex ultrasound was much more sensitive. Surgical treatment was via midline incision laparotomy: Resection (not only dividing) of the MAL for MALS, vein patchplasty to enlarge the Left renal vein, sometimes combined with SMA transposition for NCS, some cases required partial or total resection of the LRV after stenting had failed in other institutions and injured the LRV, elongation of the right common iliac artery, sometimes in combination with vein patchplasty at the ilio caval confluence.

RESULTS

Patients with mono-compression showed statistically significant less frequently signs of hEDS and HSD compared to those with multi-compression syndromes. All those with SMAS had signs of hEDS, this group benefited the most from surgery. Patients with venous

compressions (NCS, MTS) showed more often signs of hEDS than those with MALS alone. In 50 % of these, recurrent compression developed. Due to that we changed our technique and use the “external Stent” protection, which is very effective and efficient.

Patients with four RPCS were significantly more often affected to suffer from hEDS and HSD than those with MALS only.

Patients admitted for recurrences obviously suffered from hyper-elastic tissue disorder.

CONCLUSION

This analysis confirmed, that in patients with RCPS admitted for decompressive surgery an underlying disorder weakens the stability of the connective fibrous tissues of the spinal column and adjacent structures. We admit that these are selected cases being send for surgical treatment. However, examination of EDS and HSD patients, which complain about GI and pelvic symptoms, with Duplex Ultrasound in experienced hands is recommended.

DECLARATIONS OF INTEREST

None