

Feasibility of electrohysterography for uterine peristalsis measurement in non-pregnant uteri

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Material and Methods With ESUSS we assess the extent of DIE by measuring the size and depth of the lesions at the various pelvic locations first with ultrasound and later at laparoscopy. Each site has its own numerical score assigned. The correlations between the different localizations was recorded. The involvement of bowel was described, distinguishing between cranial rectum and caudal rectum and correlated to the need or not to perform a segmental resection.

Results: Posterior DIE alone was found at surgery in 135 patients (88%), anterior DIE in 2 patient(1%), posterior and anterior DIE in 17 patients (11%). The numerical score assigned to each site depends on the surgical technical difficulty. High total score correspond to wide disease extension, requiring high surgical expertise.

Discussion: This new ultrasound/surgically driven scoring system is accurate in mapping the extent of DIE and may be useful for preoperative planning and intraoperative management of symptomatic patients with DIE.

THREE DIMENSIONAL ULTRASOUND FEATURES OF UTERINE JUNCTIONAL ZONE IN PATIENTS WITH OVARIAN OR DEEP ENDOMETRIOSIS

Endometriosis: Diagnosis

Oral

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Summary (4 lines): JZ features appeared similar in patients with OMAs and those without endometriosis, whereas they are statistically different if correlated to patients with DIE.

Introduction: The aim of this study was to assess three-dimensional (3D) transvaginal sonography (TVS) detectable alterations of the uterine junctional zone (JZ) in patients with only endometriomas (OMAs) or with only deep endometriosis (DIE) and to compare these findings to those without pelvic endometriosis

Material and Methods Prospective analysis of JZ 3D TVS features in secretive phase of the cycle in patients with TVS sign of pelvic endometriosis, never treated surgically. 80 patients (ages 23-35yrs) with OMAs or DIE at TVS . Patients with both OMAs and DIE or >35yrs or with previous pelvic surgery were excluded. A control group of 20 patients without endometriosis at TVS and confirmed by laparoscopy and histology was assessed.

Results: 38 patients had only OMAs and 42 only DIE at TVS. The maximum thickness of JZ (JZ max) in patients with DIE was significantly greater than in patients with OMAs and those without endometriosis (6.5±1.9 vs 4.7±1.0mm vs 4.8±1.0mm).

Discussion: JZ thickness and its alterations are different in patients with DIE compared to those with OMAs and without endometriosis. Since these JZ ultrasound features are mostly associated with adenomyosis, a correlation between DIE and JZ hyperplasia and adenomyosis could be hypothesized.

PELVIC RETROPERITONEAL EPIDERMOID CYST TREATED WITH LAPAROSCOPIC RESECTION WITHOUT ADDITIONAL PERINEAL APPROACH

Case reports

Video

Ornella Sizzi*, Rossetti Alfonso, Manganaro Lucia, Saldari Matteo, Mercuri Massimo

Nuova Villa Claudia Hospital

Summary (4 lines): First laparoscopic approach for resection of a pelvic retroperitoneal and presacral tumor

Introduction: We report a detailed description of the laparoscopic procedure performed in a 32-year-old woman to remove a mass, detected on US and MRI, closely adherent to the left sacrospinous ligament and compressing the rectum. The histopathological exam confirmed the suspect of a rare case of pelvic retroperitoneal epidermoid cyst.

Material and Methods Laparoscopic examination of the peritoneal cavity was negative. Considering the MRI , we performed a thorougher inspection of the vagina and rectum. We found a softness and increased thickness of the left pubococcygeal and puborectalis muscle. The left ureter was mobilized and the peritoneum was incised between the left uterosacral ligament and the rectum. Through a sharp and blunt dissection the underneath connective and fat tissue was removed and the visualization of the cyst was possible.

Results: The mass appeared to be tenaciously adherent to the pelvic floor muscles and to the rectum . We proceeded with an accurate dissection of the lesion and with its progressive isolation. The histological exam made a diagnosis of epidermoid cyst.

Discussion: Experience with MIS to resection of these tumors is limited. Although a few cases of laparoscopic excision of a pararectal cyst have been reported , this is the first case describing a successful laparoscopic enucleation of a pelvic retroperitoneal epidermoid cyst without a combined perineal approach.

FEASIBILITY OF ELECTROHYSTEROGRAPHY FOR UTERINE PERISTALSIS MEASUREMENT IN NON-PREGNANT UTERI

Imaging

Poster

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Summary (4 lines): Electrohysterography (EHG) could be a suitable option to measure uterine peristalsis, enabling the long-term measurement of pre- and post-treatment effect of interventions in fertility patients.

Introduction: Uterine peristalsis in a non-pregnant uterus has proven to play a role in fertility. Uterine pathology can interfere with uterine peristalsis and subsequently hamper fertility. Currently used measurement tools, such as trans-vaginal ultrasound (TV-US), are time-consuming and inter-observer variability is of concern. In this study, we evaluated the feasibility of a new method based on trans-vaginal electrohysterography (TV-EHG) for the measurement of peristalsis in non-pregnant uteri.

Material and Methods We carried out a study in a Dutch peripheral hospital. We included five women (aged 27-37 years) with a natural and regular menstrual cycle. TV-EHG and TV-US measurements were performed simultaneously during the active (peri-ovulatory) and non-active (mid-luteal) phases of the menstrual cycle. Contractions were annotated by two experts after visual inspection of the recorded TV-US image sequences. A new method was used to automatically and independently detect contractions in the TV-EHG signal.

Results: The frequency of contractions, in number of contractions per minute, derived by the two methods was evaluated. We found a Pearson correlation coefficient ρ of 0,68 (p-value

Discussion: This feasibility study suggests that TV-EHG is able to measure the frequency of uterine peristalsis reliably, showing correlation with TV-US. Future studies will focus on an extended validation of the method and see if EHG can be of aid in measuring pre- and post-treatment effect of interventions in fertility patients.