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The micro-anatomical structural and morpho-functional capacity of the ureter from the lumen to the exterior, depending on the predominant tissue component, is determined and guided by three tunics: the internal tunic - the epithelial conjunctive, the medial tunic - the muscular conjunctive and the external conjunctive-vascular-nervous. The latter has a significant importance in the medical-surgical management of surgical pathology and functional management of the intraoperative and postoperative ureter. This is frequently found in both normal ureters and ureteral malformations due to the well-differentiated vasculo-arterial afferent network associated with efferent vascular-venous networks.

The conjunctive-vascular-nervous tunic, so nominated by us, is constituted by making continuously the connective tissue from the muscular-conjunctive tunic to the periphery and transition by discontinuity of the connective tissue of the retroperitoneal cell-adipose tissue into a lax connective plate consisting of fine collagen and elastic fibers with a varied condensation, thus anchoring the ureter in the retroperitoneal space. We consider it the "meso" of the ureter

Normally, this tunic has a more intimate appearance with the ureter, whereas a considerable distance from the muscular tunic can be observed in malformations.

It has been established that vasculo-nervous devices in the sheath area form a vascular plexus giving various circular and longitudinal oblique branches anastomosed and organized in a layered way, segmented or in various arborescent aspects.

This plexus, a vascular carcass, directly communicates with the vasculo-nervous network of muscle and epithelial-connective tunics. Between the sheath and ureter muscles, the connective tissue is devoid of vascular anastomosis, in this area there are only afferent and efferent arterio-venous vessels that penetrate the respective area, which allows it to be detached on insignificant surfaces.

The detachment of the ureteral sheath induces amputation of the afferent and efferent arterial and venous branches with the disordered local circulation at the meso-ureter level, including the ureter within the limits of the detachment. The attempts of detachment of the ureteral sheath contribute to severe circulatory disturbances in the ureteral segments meant for anastomosis, which leads to fibrosis of the ureter.

The lower third of the ureter does not mobilize, but detaches from the peri

RADIOLOGICAL PARTICULARITIES OF THE OBSTRUCTIVE VAGINAL ANOMALIES

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Introduction: Obstructive vaginal anomalies (OVA) are a very rare pathology, occurring at a frequency of 0.1% of newborn girls. OVA is a broad spectrum of various Müllerian anomalies: imperforate hymen (IH), complete transverse vaginal septum (CTVS), Herlyn-Werner-Wunderlich syndrome (HWW).

Objective of the study: Evaluation of radiological features of obstructive vaginal anomalies by ultrasound examination (USG), computed tomography (CT) and magnetic resonance imaging (MRI).

Material and methods: The retrospective and prospective study included 52 patients operated in the Department of Surgical Gynecology of the Institute of Mother and Child. The mean age was 15.7±0.3 years (95% CI: 14.97–16.34). Diagnosis confirmed by the USG exam (n=52, 100%), CT (n=4, 7.7%) and MRI (n=7, 13.4%).

Results: In all cases (100%) USG (transabdominal or transrectal) were performed. IH was detected in 29 (55.8%) cases, USG demonstrates hypoecogenic hematometocolpos, MRI in T1W images - important uterine dilatation, intrauterine and intravaginal hemorrhagic fluid with hyperextension up to hymen; in T2W images - hyposeminal of intrauterine hemorrhagic content. CTVS was present in 8 (15.4%) cases, CT - intrauterine hyperdense content with density up to 55UH; MRI demonstrates a vaginal transverse membrane appreciates its thickness and location. HWW syndrome was diagnosed in 15 (28.8%) patients and included uterus didelphys, obstructive hemivagina and ipsilateral renal agenesis. USG reveals renal agenesis and compensatory renal hypertrophy, the uterus didelphys with hypoecogenic fluid in the hemiuterus suggestive for haematometra, hematosalpinx. Based on the imaging data, the mean volume of the hematocolpos was 923.6±79.1 ml (95% CI: 764.8–1082). Hematometra was detected in 23(44%) patients, hematosalpinx and pelvic endometriosis - 3(5.7%). Based on radiological findings (USG, TC and MRI), the maximal size of hematocolpos was 112.4±5.8 mm (95% CI: 100.6–124.2), the minimal size was 76.7±3.5 mm (95% CI: 69.64–83.81). In 16(30.7%) cases vaginal malformations were combined with renal anomalies.

Conclusions: Modern imaging techniques elucidate the particularities of the radiological anatomy of OVA, allow early diagnosis of this pathology, treatment management to restore menstrual and fertile function.