

Hydronephrosis due to voluminous adnexial mass in a teenager : management and treatment.

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Introduction

Paratubal or paraovarian cysts represent approximately 10% of all adnexal masses (1-2).

They are usually derived from the mesothelial covering of the peritoneum or remnants of paramesonephric and mesonephric origin, so histologically they are covered by a single layer of ciliated columnar or flattened cells. (3)

A paramesonephric cyst is a closed, fluid-filled sac that grows beside or near the ovary and fallopian tube, but is never attached to them. It is located on the broad connection (ligament) between the uterus and the ovary, and usually it is unilateral. Paramesonephric cysts are in most cases very small (ranging from 2 to 20 mm). These small cysts have little clinical significance, occurring asymptotically as incidental findings during other pelvic examinations and surgeries. Most often, they are diagnosed as benign ovarian cysts or as fluid-filled distentions of the fallopian tube (hydrosalpinx).

FIG 1 REMOVAL OF THE MESONEPHRIC MASS WITH ENDOBAG



Although known for their small size, paramesonephric cysts can sometimes become larger, especially during pregnancies. Unlike the small cysts, the larger ones are usually symptomatic. Depending on their size and location, large adnexial cysts can make compression on the bladder uterus or bowel.

The smaller paramesonephric cysts are most commonly found in middle-aged women (in the 30 to 40 years of age group), and are often indistinguishable from simple ovarian cysts. Larger paramesonephric cysts develop in younger women, quite often during a pregnancy, when they have a tendency to grow quickly.

The great paramesonephric cysts frequently cause pelvic tenderness, usually on one side (unilateral), irregular periods, abnormal uterine bleeding, and pain during sexual intercourse (dyspareunia).

The large paramesonephric cysts may be discovered when the physician presses with the hands (palpation) on the lower abdomen, or during the vaginal bimanual examination.

An ultrasound scan is used to make the diagnosis of the mass, and to define the localization. Tomography is useful to clarify diagnosis but the risk of radiation must be considered. In case of diagnostic doubts, N.M.R. is preferable to detect the right diagnosis and avoid radiation damage on the ovary, especially in young girl.

Most paramesonephric cysts that remain small and asymptomatic do not require treatment; sometimes they disappear on their own. Surgical removal of the cyst is usually indicated for women when the mass overtakes 5 cm diameter or in presence of symptomatology. When the cyst is larger than 10 cm, is complex, increasing in size, persists after several months, is solid, dense, and irregularly shaped, or is infected, bleeding or ruptured, more invasive surgery may be required.

We report a rare case of paramesonephric cyst of huge dimensions in a 14 year old obese girl (104 Kg).

Case report

An obese 14 year old virgin girl presented at the outpatient department with gradually increasing abdominal swelling first noticed 1 years back. Abdominal distension was accompanied with vague symptomatology all over the abdomen for 3 months and localized pain in the right hypochondrium for the last month. There was no history of colicky pain, fainting attacks, vomiting or other gastrointestinal disturbances. Her bowel and bladder habits were normal. There were no anorexia, weight loss nor weakness. She had a regular cycles at intervals of 25- 28 days, which lasted for 5-6 days associated with mild dysmenorrhea. On general examination, her vital parameters were stable. On abdominal examination, a smooth tense cystic mass arising from the pelvis and extending to the mesogastric region was palpated.

The mass was not mobile and not tender. Bowel sounds were heard over the flanks. There was no fluid thrill and hernial sites were normal. Rectal examination showed a large mass compressing bladder, uterus and rectum.

On ultrasound examination, uterus was normal in size and shape, right ovary was rounded by an 18 cm size homogeneous anechoic cyst. Left ovary was normal with 1 cm anechoic structure. The huge cyst arising from the pelvis and occupying the whole abdomen pressed both kidneys and caused bilateral hydronephrosis, more

evident on the right renal pelvis. A instrumental diagnosis of benign huge right adnexial cyst was made. Preoperative investigations including the renal function tests were regular.

Laparoscopy was used to confirm the diagnosis of a paramesonephric cyst and treat the patient. The operation was very challenging and preservation of both ovary and tube was done. The cists was removed by means of endobag, (Fig. 1). Another 1 cm cyst was removed on the left adnexum. Histological result was bilateral benign paramesonephric cyst (cm 18 and 1, respectively).

Post-operative course was regular, and after 1 week renal dilatation disappeared completely.

Conclusion

The case report is very interesting for the following aspects:

1. size of the cyst;
2. hydronephrosis;
3. compression on the pelvic organs;
4. age of the patient;
5. modality of the management.
6. follow-up.

As regards the size of the paramesonephric cyst, it doesn't give any problem when it is very small. On the contrary, when the cyst overtakes the pelvis and reaches the abdominal cavity, it is to be considered pathologic. In this cases, despite benign, removal of the cyst is required.

Hydronephrosis is a consequence of a compression of the ureters, and could be either mono or bilateral. In this report, owing to the main extent of the cyst on the right side, hydronephrosis was more evident on the right kidney. Persistent dilatation of renal pelvis could damage the renal function. The prompt treatment of the mass prevents renal complications.

As regards as pelvic organ compression, bladder, uterus and intestine could be involved. Bladder compression owing to ovarian mass could give the complete obstruction of lower urinary tract (5).

As for as the age of the patient, the cyst originating from mesonephric residual may affect young people. A great experience is requested regarding the diagnosis and the choice of either attending or operative treatment.

Finally, concerning the management, only large and symptomatic cysts must be treated. Surgical approach could be laparoscopic or laparotomic. Nowadays, laparoscopic approach is more appreciated by the patients, both for the esthetic point of view and the shortage of postoperative course. In this case report, the laparoscopic choice was gratefully accepted by the patient. A very important question is to save the pelvic organs (6), especially when the pathology involves a teen-ager. Every strength must be done to avoid damage for the future fertility. Cystectomy with preservation of both ovaries and tubes was performed successfully. The removal of controlateral little cyst was optional, although it was considered intra-operatively useful to avoid further future growing.

The regular follow-up and the regression of hydronephrosis, other than the

satisfaction of the patient, may be considered a successful management of this unusual pathology affecting a 14-years-old girl.

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