International Journal of Academic and Applied Research (IJAAR)
ISSN: 2643-9603
Vol. 5 Issue 2, February - 2021, Pages: 43-47

Adnexal Torsion: Rare Condition In Pre-Pubertal Age?

F Z Gounain, F.EL Hillali, N. Mamouni, S. Erraghay , C. Bouchikhi, A. banani

Obstetrics Gynecology Department I in CHU Hassan Fez

Abstract: *Torsion of the appendages in girls is an emergency. Ovarian tissue is more resistant to ischemia than testicular tissue, and recovery from ischemia can be expected for up to 72 hours. Unlike testicular torsion, there are no real pathognomonic signs; the best way to avoid delayed diagnosis is to think about it in the face of sudden pelvic pain*

Keyword: Adenexal torsion , oelvic pain , abdominal , pre-pubertal, age .

Introduction:

Adnexal torsion in pediatric age is a rare pathology secondary to total or partial rotation of the appendix around its vascular axis. It poses a diagnostic and management problem despite radiological progress. This explains the consistently high rate of adnexal losses, It is a very rare cause of acute abdominal pain in children, but potentially severe (1)

It is a surgical emergency, the diagnosis of which remains difficult given the non-specificity of the clinical picture combined with a clinical evaluation which is most often difficult in this age group of the population.

Surgical exploration remains the key to diagnosis but the use of laparoscopy and conservative modalities are the methods of choice currently used to preserve the ovarian tissue as much as possible.

Méthodes :

We report a case of ovarian torsion in a 15-year-old girl diagnosed and treated in the obstetric gynecology department 1 at CHU hassan II Fès. We will deal with the circumstance of discovery of the torsion, the underlying pathology and the postoperative course.

Results:

the patient's age is 15 years. the main symptom was abbominal pain localized at the site of the torsion, in our case in the right hypochondrium. it was secondary to a right ovarian cyst.

Ultrasound was performed urgently and showed a latero-uterine mass with asymmetric increase in ovarian size with asymmetric increase in ovarian size, a hyperechoic aspect of the ovarian parenchyma containing follicles available at the periphery, Doppler flow was still present, with the presence of vortex sign with 3 turns without intraperitoneal effusion.

The abdominal CT scan was urgently requested in this patient to confirm the diagnosis of the torsion given the diagnostic difficulty in the little girl.The scannographic signs revealed were: an anomaly of the situation with increase in ovarian size associated with uterine attraction, the presence of follicles with peripheral arrangement with spontaneously hyperdense appearance of the ovarian parenchyma.

Preoperative assessment was requested with BHCG to rule out pregnancy.

The treatment consisted of a detorsion associated with cystectomy with conservation of the ovarian parenchyma.

Figure 1: Intraoperative view of a torsion of the ovary secondary to a large cyst showing the sign of vortex

figure 2: intraoperative view showing uterus being pushed back by the twisted ovary

Figure 3: conservation of blood flow after torsion and before cystectomy.

Discussion:

Torsion of the appendix at pre-pubertal age is a rare condition secondary to total or partial rotation of the appendix around its vascular axis. Torsion occurs most often on the right without really knowing why [3]. In relation to the gonadal risk, all types of torsion do not have the same severity [4-5]. The diagnosis of appendicitis is often made. : laparoscopy will correct the diagnosis [3].

In practice, there are completely different situations depending on the age of onset of the mechanical accident: perinatal or peri pubertal [6-7].

For ante and neonatal ovarian torsion, there is a very low proportion of torsion in healthy adnexa during this period [8]. These twists currently seem to be above all therapeutic sources because it is impossible to make the diagnosis in the antenatal period [9]. The majority of torsions in the ante and neonatal period, however, occur in a functional cyst [10]. This is important because the cyst is an image more and more noticeable on ultrasound due to the generation of the antenatal diagnosis and the improvement of ultrasound devices [1,7,9].

The ultrasound of the 3rd trimester of pregnancy will help identify these fetuses at risk. The risk of complications for an ovarian cyst spotted in the ante or neonatal period is not clear. In our series, we treated an ovarian cyst with a pre-pubertal diagnosis.

Rarer complications can be observed. Large cysts can cause compression of surrounding organs (a few cases of obstructed labor during delivery with a monstrous ovarian cyst have been reported) [7]. These cysts can also be the cause of intestinal obstruction; several other series in the literature report it [11,12]. On the other hand, we did not observe any intracystic hemorrhage or cystic rupture, which are however fairly standard complications [13,14,15].

In our patient, the diagnosis initially suspected was that of acute appendicitis. The use of imaging for the exploration of acute pelvic pain is common. Ultrasound is the first-line examination. Its contribution to the positive diagnosis of ovarian torsion remains controversial. The diversity of ultrasound signs must be correlated to the patient's clinical picture. The interest of ultrasound is the search for factors favoring adnexal torsion (ovarian hypertrophy, mass), the search for complications (effusion, pelviperitonitis) and the differential diagnosis of other etiologies of pelvic pain.

The typical appearance of torsion is manifested by unilateral ovarian enlargement with edema and peripheral arrangement of the follicles [5]. The presence of a spiral appearance has been shown to increase the sensitivity of the examination [6]. The absence of adnexal vascular flow on Doppler is associated with 100% of torsion cases [7].

However, this sign has a low negative predictive value since the total absence of flow is only visible in the late phase. In one study, 60% of torsions confirmed in surgery had a persistent flow [8]. In our case, the diagnosis was made by ultrasound after revealing the large cystic mass and visualization of the turns of the vascular pedicle. The rapidity of the diagnosis allowed treatment before the onset of ovarian ischemia. The use of the scanner for the exploration of pelvic pain in the emergency room is frequent when a urinary or digestive cause is suspected. Its specificity and sensitivity in the diagnosis of ovarian torsions are low. Hiller et al. showed that only 34% of surgically confirmed ovarian torsions had a correct preoperative diagnosis based on the results of computed tomography
(TDM) [9, 10]. Magnetic resonance imaging (MRI) is a non-invasive examination that is effective in the diagnosis of pelvic pain and provides additional information to ultrasound. It is a test whose safety has been proven in pregnant women. Emergency use of this technique remains limited by its high cost and low availability. Benign ovarian masses are the most common causes of adnexal torsion.
Adnexal torsion is a surgical emergency. Surgery is the rule when there is suspicion of ovarian torsion in order to confirm the diagnosis and prevent ovarian damage. The exploration is most often done by laparoscopy. Laparotomy is indicated in the case of an ovarian mass of more than 75 mm (11]. Radical (adnexectomy) or conservative treatment is carried out according to the appearance of the appendix after 10 min after detorsion [12]. For some authors, conservative treatment is justified despite a doubtful vitality of the appendix (12]. In our case, the radiological diagnosis of certainty before the operation of the patient made it possible to institute a management. The laparotomy was chosen. before the large volume of the mass, and the absence of ischemia of the appendix made it possible to perform a cystectomy and a conservative treatment of the ovary

Conclusion :

Torsion of the appendages in girls is an emergency. Ovarian tissue is more resistant to ischemia than testicular tissue, and recovery from ischemia can be expected for up to 72 hours. Unlike testicular torsion, there are no real pathognomonic signs; the best way to avoid delayed diagnosis is to think about it in the face of sudden pelvic pain. The echodoppler is not yet a very reliable way to judge ovarian ischemia. Laparoscopy, currently done with miniaturized equipment, should be considered as a diagnostic and then therapeutic act to be performed in the slightest doubt. The surgeon, apart from cases of suspicious tumors or irreversible necrosis, should do everything possible to conserve the ovarian tissue. In this way, we can hope to improve the ovarian conservation rate, which today remains low.

Bibliographie :

1.Shust NM, Hendricksen DK. Ovarian torsio: an unusual cause of abdominal pain in a young girl. Am J Emerg Med. 1995;13(3):307-309. PubMed | Google Scholar | Davis LG, Gerscovich EO, Anderson MW, Stading R. Ultrasound and Doppler in the diagnosis of ovarian torsion. Eur J Radiol. 1995;20(2):133-136. PubMed| Google Scholar)

2 . Rody A, Jackisch C, Klockenbusch W, Heinig J, Coenen- Worch V, Schneider HPG. The conservative management of adnexal torsion - a case report and review of the literature. Eur J Obstet Gynecol Reprod Biol. 2002;101(1):83-86. PubMed | Google Scholar
3., Oelsner G, Shashar D. Adnexal torsion. Clin Obst Gynecol. 2006;49:459–63.
4 .Charles A, Dinarello C.A,Reuven P. Fever and hyperthermia. In: Longo DL, Fauci AS, Kasper DL, Hauser SL, Jameson JL, Loscalzo J. Principles of Internal Medicine. USA: Harrison's; 2012. p. 143–58.
5. Steven M, John I. Disorders of granulocytes and monocytes. In: Longo DL, Fauci AS, Kasper DL, Hauser SL, Jameson JL, Loscalzo J. Principles of Internal Medicine. USA: Harrison's; 2012. p. 472-82.
6. Tsafrir Z, Hasson J, Levin I, Solomon E, Lessing JB, AzemF. Adnexal torsion: cystectomy and ovarian fixation are equally important in preventing recurrence. Eur J Obstet Gynecol Reprod Biol. 2012;162:203-5
7. ijayalakshmi K, Reddy GM, Subbiah VN, Sathiya S, Arjun B. Clinico-pathological profile of adnexal torsion cases: a retrospective analysis from a tertiary care teaching hospital. J Clin Diagn Res. 2014;8: OC04–OC07.
8. Lo LM, Chang SD, Horng SG, Yang TY, Lee CL, Liang CC. Laparoscopy versus laparotomy for surgical intervention of ovarian torsion. J Obstet Gynaecol Res. 2008;34:1020-5.
9. Shukunami K, Nishijima K, Orisaka M, Yoshida Y, KotsujiF. Acute abdomen in a Jehovah's witness with chronic anemia. Am J Emerg Med. 2004;22:242-3.
10. Hasson J, Tsafrir Z, Azem F, Bar-On S, Almog B, Mashiach R, et al. . Comparison of adnexal torsion between pregnant and nonpregnant women. Am J Obstet Gynecol. 2010;202:536.e1-6.
11. Wilkinson C, Sanderson A. Adnexal torsion -- a multimodality imaging review. Clin Radiol. 2012;67:476-83.

12.Spinelli C, Buti I, Pucci V, Liserre J, Alberti E, Nencini L, et al. . Adnexal torsion in children and adolescents: new trends to conservative surgical approach -- our experience and review of literature. Gynecol Endocrinol. 2013;29:54-8.
13. Vijayaraghavan SB. Sonographic whirlpool sign in ovarian torsion. J Ultrasound Med. 2004 ;23:1643-9.
14. Valsky DV, Esh-Broder E, Cohen SM, Lipschuetz M, Yagel S. Added value of the gray-scale whirlpool sign in the diagnosis of adnexal torsion. Ultrasound Obstet Gynecol. 2010;36:630-4.
15. Hiller N, Appelbaum L, Simanovsky N, Lev-Sagi A, Aharoni D, Sella T. CT features of adnexal torsion. AJR Am J Roentgenol. 2007;189:124-9.