

Adnex Torsion Complicating A Dermoid Cyst of the Ovarian Girl: Apropos of 2 Cases in the Pediatric Surgery Unit of the Hospital in Mali

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DOI: [10.36348/sijog.2023.v06i05.003](https://doi.org/10.36348/sijog.2023.v06i05.003)

| Received: 24.03.2023 | Accepted: 28.04.2023 | Published: 17.05.2023

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Abstract

Adnexal torsion is a spontaneous rotation of the ovary and sometimes the fallopian tube around its axis which can interfere with arterial supply and lead to ischemia. It is a rare complication of an ovarian cyst, which can occur at any age, from the fetal period to adulthood. The mature cystic teratoma accounts for 20% of all ovarian tumors and is seen especially in young girls and therefore is most often benign. It's a surgical emergency. We report here two cases of adnexal torsion operated at the level of the pediatric surgery unit of the Hospital of Mali. The two girls are 14 and 13 years old, nulligest and normoregulated with recurrent abdominal pain admitted for acute pelvic pain. On palpation, an abdomino-pelvic mass of a firm and painful consistency is noted. An abdominopelvic ultrasound was performed in both cases and revealed torsion of the left adnexa on the left ovarian cyst in the first and on the right in the second. The surgical procedure performed was manual detorsion and cystectomy in both cases. The anatomopathological examination concluded with a dermoid cyst. In the two girls and their postoperative course was simple.

Keywords: Adnexal torsion, dermoid cyst, complication, cystectomy.

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INTRODUCTION

Adnexal torsion is a spontaneous rotation of the ovary and sometimes the fallopian tube around its axis which can interfere with arterial supply and lead to ischemia. It is a rare complication of an ovarian cyst, which can occur at any age, from the fetal period to adulthood [5, 6]. Ovarian tumors, whether cystic, solid, or mixed, are considered rare in the pediatric population [1]. Germ cell tumors represent approximately 30% of primary ovarian tumors, 95% of which are mature teratomas [2]. The mature cystic teratoma accounts for 20% of all ovarian tumors and is seen mainly in young girls and therefore is most often benign [3, 4]. It is a rare but potentially severe cause of acute abdominal

pain in children. It's a surgical emergency. Establishing an early diagnosis is not easy, hence the attitude of evoking an ovarian pathology in the face of any abdominal mass in girls [7, 8]. We report here two cases of adnexal torsion operated on at the level of the pediatric surgery unit of the Hospital of Mali.

OBSERVATION 1

We report the case of a 14-year-old girl, a housewife mother and a 40-year-old father, a farmer, 62 years old. She is nulligest, normo regulated. The parents reveal that she has been suffering from repeated pelvic pain for three years. She was brought for consultation by her parents for acute pelvic pain associated with early postprandial vomiting. On physical examination,

the patient was in good general condition, afebrile, hemodynamically stable with normo-stained conjunctivae. The abdomen is slightly distended and on palpation there is an abdominopelvic mass of firm, painful consistency, exceeding the umbilicus. The lymph node areas are free. Speculum examination and vaginal examination were not performed because the patient was a virgin. The rest of the exam came back unremarkable.

An abdominopelvic ultrasound was performed and revealed torsion of the left adnexa on the left ovarian cyst measuring 15 cm long axis. A false

pfannenstiel type laparotomy was indicated and performed under general anesthesia after a preoperative assessment which came up without any particularity. On exploration, we find a torsion of the left appendix with 2 turns of the spiral, a cystic mass developed at the expense of the left ovary which is ischemic. The rest of the exploration of the abdominal cavity is normal. The surgical procedure performed was manual detorsion and left cystectomy. The operating piece which weighed 1100 grams was sent for the anatomopathological examination which concluded to a dermoid cyst. The postoperative course was simple.



Figure 1: Dermoid Cyst of the Ovarian

OBSERVATION 2

It is a 13-year-old teenager, 36-year-old mother, housewife and 45-year-old father, Gendarme.

She is nulligest, normo regulated, she has a history of recurrent pelvic pain. She was brought to a consultation by her parents for severe pelvic pain associated with vomiting food. On physical examination, the patient was in good general condition, afebrile, hemodynamically stable with normal colored conjunctivae, her abdomen was distended and on palpation there was an abdominopelvic mass of firm

and painful consistency, exceeding the umbilicus. The lymph node areas are free. Speculum examination and vaginal examination were not performed because the patient was a virgin. The rest of the exam came back unremarkable.

An abdominopelvic ultrasound was performed and revealed torsion of the right adnexa on the right ovarian cyst measuring 10 cm long axis.

A fenestral-type laparotomy was indicated and performed. On exploration, we find a torsion of the

right appendix with 2 turns of the spiral, a cystic mass developed at the expense of the right ovary which is ischemic. The rest of the exploration of the abdominal cavity is normal. The surgical procedure performed was a manual detorsion and a right cystectomy. The surgical

specimen, which weighed 800 grams, was sent for histological examination and concluded that there was a dermoid cyst of the right ovary. The postoperative course was simple.



Figure 2 : Ovarian cystectomy specimen

DISCUSSION

Ovarian torsion results from a spontaneous rotation of the vascular and lymphatic pedicle of the appendix around its axis. This torsion of the vascular pedicle leads first to an alteration of the lymphatic circulation, then to a reduction in the venous circulation of the ovary. Ovarian engorgement and edema ensue and lead to increased pressure in the ovary. Without intervention, arterial blood supply is compromised and eventually leads to ovarian infarction [9]. The results of several studies have shown that the risk of torsion is correlated with the size of the cysts and is greater when the cysts measure 4 to 5cm [10, 11]. These results corroborate those of our study where the sizes of our cysts are respectively 15 cm and 10 cm.

Epidemiologically, fifteen percent 15% of all ovarian torsion occurs in the pediatric population [12, 13]. In children, torsion of the ovary can occur at any age, but it predominates in peripuberty and in adolescents with an average age of onset between 9 and

12.5 years [14, 9, 10, 12]. These results can be superimposed on those of our series with respectively 13 and 14 years.

Clinically, adnexal torsion causes acute, intense, unilateral pelvic pain, associated with signs of peritoneal irritation (nausea, vomiting), low-grade fever or dysuria [9, 12]. In the presence of a right localization, the adnexal torsion can produce a pseudo-appendicular table. The pain can also be intermittent, related to episodes of subtorsion. The disappearance of pain can reflect either a self-limiting episode of subtorsion, or infarction of the twisted adnexa. In our series, acute pelvic pain was the main symptom.

Imaging, in particular ultrasound, is the main means of radiological exploration in the face of any clinical suspicion of ovarian torsion. The radiological aspect of ovarian torsion is very variable, linked to the degree of internal hemorrhage, stromal edema, infarction and necrosis occurring at the time of

diagnosis. However, the most common radiological appearance of ovarian torsion in young girls is unilateral ovarian enlargement [15, 12, 14]. This aspect was found in all our patients. The presence of an adnexal mass increases the volume of the ovary and therefore theoretically predisposes it to torsion [14]. Computed tomography (CT) and magnetic resonance imaging (MRI) are not common first-line radiological examinations, but can provide additional information in contentious cases where diagnostic doubt persists, in subacute cases or in case of ultrasound discovery of a large adnexal mass, in order to study the relationship with neighboring organs, but on condition of being able to perform them urgently. These examinations were not performed in our study because the diagnosis was easier on ultrasound.

Among the differential diagnoses, appendicitis is the main differential diagnosis in front of a right location, but several other entities can simulate an array of ovarian torsion, namely hemorrhagic cysts, tubo-ovarian abscess, ectopic pregnancy and ovarian tumor lesions [9, 14]. However, the clinico-biological context combined with the radiological data usually makes it possible to rectify the diagnosis.

Therapeutically, the goal of emergency management of torsion is based on the preservation of ovarian function, in particular fertility. It consists of an urgent surgical detorsion with visual inspection of the viability of the ovary. The salpingo-oophorectomy is generally reserved in case of frankly necrotic ovary. Performing ovariopexy after detorsion is controversial, with some authors recommending this procedure in the pediatric population, particularly after loss of the contralateral ovary or in the face of recurrent intermittent torsion [16]. A cystectomy was performed in all our patients.

CONCLUSION

Ovarian torsion is a rare and serious pathology in children. It is a real diagnostic and surgical emergency because its functional prognosis depends on it.

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