

Hydrosalpinx with Adnexal Torsion in a Virgin Patient

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ABSTRACT

We present a case of 28-years-old female, presenting with acute right lower abdominal pain. She wasn't sexually active and in the absence of infection and hormonal treatment, with right side adnexal torsion due to hydrosalpinx.

KEY WORDS: Hydrosalpinx; Adnexal Torsion; Acute Abdomen.

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INTRODUCTION

Hydrosalpinx is usually found as a consequence of Chlamydia or other infections in the fallopian tube. Hydrosalpinx are one of the predisposing factors of adnexal torsion. However, because the incidence of hydrosalpinx in virgin patients is rare, sometimes it leads to suboptimal treatment.^{1,2}

We report a patient with acute abdomen not sexually active with primary impression of torsion of ovarian cyst in which laparotomy was done but surprisingly we encountered torsion in right adnexa due to hydrosalpinx.

CASE REPORT

A 28 years old virgin female presented to the emergency room with chief complaint of colicky right lower abdominal pain, which had started suddenly on the day of admission. Also, she suffered from nausea and vomited several times. Past medical history revealed that she was generally healthy, with no previous surgery, and had not suffered previously from abdominal or pelvic pain. Her menarche was at age 13. She had regular menstrual periods and her

last menstrual period started 15 days before of admission. She did not have menorrhagia or dysmenorrhea. She reported that never been sexually active. On physical examination, she was anxious, pulse rate was 88, temperature 37/7C and normotensive. There was rebound tenderness in the right lower abdomen. There was no flank tenderness. Due to her intact hymen, a vaginal examination was not performed. **Laboratory and imaging evaluation:** Complete blood count (CBC) and urine tests were within normal limits. B-Hcg was negative. Transabdominal ultrasounds scan showed a pelvic simple cystic mass measuring 74 mm × 70 mm with clear fluid and without solid components or septations. The right ovary could not be separately demonstrated. The left ovary was normal in size and shape. The bladder was catheterized and 250 ml of clear urine was drained; however, the mass persisted. The impression was a large simple, right ovarian cyst with torsion.

She was prepared for OR. On laparotomy, the uterus and the left adnexa were normal. The right adnexa was in torsion X 2, consisted of an edematous, bluish, enlarged non-cystic ovary and a large mass appearing to be a hydrosalpinx. Detorsion was performed, and the color of the ovary returned gradually to normal. Aspiration of a large volume of clear fluid was performed. Oopheropexy to pelvic wall was also performed.

During the post-operative course the patient was asymptomatic, her abdomen was not tender. The patient was treated with ceftriaxone and clindamycin with good response and was discharged. Four weeks later, in a routine follow-up, transabdominal ultrasound revealed bilateral normal ovaries.

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Fig-1: Right adnexal torsion due to hydrosalpinx in right adnexa.

DISCUSSION

The development of hydrosalpinx is usually secondary to infection causing chronic pathology to the fallopian tube with distal obstruction.² It is usually found as a consequence of Chlamydia or other infections in the fallopian tube.¹

Severe tubal disease, specifically distal tubal obstruction leading to hydrosalpinx, is associated with a poor fertility prognosis. Tubal sterilization was also described as a predisposing factor to the formation of hydrosalpinx. Patients who have undiagnosed chronic pelvic inflammatory disease (PID) with distal tube damage, followed by bilateral tubal ligation (proximal occlusion), may develop hydrosalpinx.²⁻⁴

It has also been described in patients undergoing ovulation induction, when increased tubal secretions due to multi hormonal stimulation may cause a blocked distended tube. The presence of hydrosalpinx can be diagnosed by hysterosalpingogram or by laparoscopy with or without chromopertubation. Transvaginal ultrasonography (TVUS) has also been used to evaluate pelvic structures. Normal fallopian tubes can only be recognized in the presence of pelvic fluid.

In some patients, hydrosalpinx can be diagnosed by TVUS. It is recognized by its location separate from the ovary, its tubular appearance, and occasional longitudinal folds in the ampullary portion of the fallopian tube. TVUS is very specific in the diagnosis of hydrosalpinx but its sensitivity is poor.^{2,5-7} The presence of hydrosalpinx has a negative effect on IVF/ET. The exact mechanism by which these severely damaged tubes affect the developing embryo has yet to be determined, but the embryotoxic

effects of the hydrosalpingeal fluid have been strongly suspected. It has been shown that by surgically removing the source of the fluid by salpingectomy, IVF/ET rates can be improved.⁵⁻⁷

In our case, none of the mechanisms mentioned above can explain the hydrosalpinx in 28-year old, sexually non-active, virgin patient. Obviously, hydrosalpinx will not be suspected in the differential diagnosis unless symptomatic, due to PID or torsion. Krstic described the first case of an adolescent, 13 years old, with acute abdominal pain with adnexal torsion secondary to unilateral hydrosalpinx.⁸ Two years later, Thomas described the second case of torsion of hydrosalpinx in a 14-year-old⁹ and then a case of an 18 years old virgin adolescent with the same symptoms was presented.² In all those 3 cases the etiology of the hydrosalpinx was unclear. The possible diagnosis of adnexal torsion deserves acute surgical intervention in order to release the torsion and resume the adnexal blood supply.

A large distended fallopian tube, in adolescence, may possibly be treated conservatively with aspiration of the hydrosalpinx. At surgery, if the ovary is still viable, immediate change in the adnexal color is noted, changing gradually, within minutes, from black to pink.²

CONCLUSION

Hydrosalpinx in adolescents is very rare and may be misdiagnosed as simple ovarian cyst. So we should consider it as a rare cause of pelvic mass in the adolescents or virgins.

REFERENCES

1. Osuga Y, Koga K, Hirata T, Hiroi H, Taketani Y. A case of hydrosalpinx associated with the menstrual cycle. *Fertil Steril* 2008;90(1):e9-11.
2. Pinkert M, Klein Z, Tepper R, Beyth Y. Hydrosalpinx with adnexal torsion in an adolescent virgin patient – A diagnostic dilemma: Case report and review of the literature. *J Pediatr Adolesc Gynecol* 2006;19(4):297-99.
3. Coughlan C, Li T.C. Surgical management of tubal disease and infertility. *J Obstet Gynaecol Reprod Med* 2009;19(4):98-105.
4. Morse AN, Schroeder CB, Margina JF, Webb MJ, Wollan PC, Yawn BP. The risk of hydrosalpinx formation and adnexectomy following tubal ligation and subsequent hysterectomy: A historical cohort study. *Am J Obstet Gynecol* 2006;194:1273-76.
5. Ajonuma LC, Ng EH, Chan HC. New insights into the mechanisms underlying hydrosalpinx fluid formation and its adverse effect on IVF outcome. *Hum Reprod Update* 2002;8(3):255-64.
6. Nackley AC, Muasher SJ. The Significance of Hydrosalpinx in in-Vitro Fertilization. *Fertility and Sterility. Fertil Steril* 1998;69:373-84.
7. ASRM Practice Committee. Salpingectomy for hydrosalpinx prior to in vitro fertilization. *Fertil Steril* 2008;90:566-68.
8. Krstic K. Acute abdomen of genital origin in a young girl; case of torsion of a hydrosalpinx in a 13 year old girl. *Srp Arh Celok Lek* 1951;49:26-32.
9. Thomas JM. Torsion of Hydrosalpinx at Age 14. *Br Med J* 1954;27:1271-72.