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A Methodical Approach to Adnexal Torsion: Dr. Sachin's Recommendations

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Abstract:
The fifth most common gynecological emergency is adnexal torsion. affecting roughly 2–15% of women who are of reproductive age. It is characterised by the ovary and fallopian tube twisting around the vascular pedicle, which restricts arterial input and venous outflow. Adnexal torsion can present with a wide range of clinical symptoms, and physical examination results are often insufficient.
Outcomes.
The chance of saving the ovary and preventing potentially fatal outcomes like thrombophlebitis and peritonitis increases with prompt diagnosis. Ovarian cysts, whether follicular, benign dermoid, or corpus luteum, are contributing factors to torsion. It is seen in 10–20% of pregnant women and has additional causes such as PCOD and an abnormally elongated utero-ovarian ligament.
Worldwide, a variety of therapeutic techniques are used for treatment, such as utero-ovarian ligament plication, salpingo-oophorectomy, oophoropexy, adnexal detorsion alone, and detorsion combined with ovarian cystectomy either concurrently or after a gap of two to three weeks. Nevertheless, the recurrence rate lacks widely accepted parameters. The management of adnexal torsion will be guided by these factors because we are unable to objectively monitor these patients for treatment response, best treatment options, and recurrence rates. To improve its acceptability and comparability, more research is needed, and minimally invasive surgeons worldwide must follow this criterion.
In summary, this criterion will serve as a cornerstone for the treatment of adnexal torsion, allowing for the standardisation of treatment procedures and the simpler comparison of outcomes on a worldwide basis.

Keywords: standardised treatment #adnexal torsion

Introduction:

When an ovarian mass rotates along its vascular pedicle, ovarian torsion occurs. About 2-15% of patients have ovarian torsion, a rare but serious condition that can be difficult to diagnose in an emergency.
The term "ovarian torsion" describes the full or partial rotation of the adnexal structure that supports the ovary, which causes ovarian ischemia. This is commonly referred to as adnexal torsion because the fallopian tube frequently becomes involved.
We must first look at the adnexal structures in order to better understand pathology. An adult ovary weighs 3 to 8 grams and has dimensions of 3 x 2 x 1 cm.
It is usually located in the ovarian fossa on the lateral pelvic wall of nulliparous people. Ligaments secure the ovary at both extremities: utero-ovarian ligaments attach it to the uterine end, while infundibulopelvic ligaments, which enclose the ovarian vessels, connect it to the tubal pole.

Although isolated torsion is rare, occurring in only about 1 in 1.5 million women, torsion primarily affects both the ovary and fallopian tube. (1). Premenarchal and postmenopausal women are less likely to experience torsion than women of reproductive age and during pregnancy. Engorgement and ovarian edema are the first effects of the ovarian pedicle's twisting, which blocks venous flow. This engorgement worsens until the flow is impaired, which can result in infection or ischemia.

Causes: Anomalies of the ovary, including ovarian cysts that cause enlargement, pregnancy, hormonal drugs that induce ovulation, and sometimes normal ovaries in children, are likely to cause ovarian torsion. Complete torsion resulting in unilateral abrupt lower abdominal pain or intermittent torsion-detorsion causing intermittent pain are two possible presentations.

It has been found that more than 80% of patients with ovarian torsion have enlarged ovaries and an ovarian mass larger than 5 cm. Torsion susceptibility is increased by ovarian induction or multi-follicular growth. Furthermore, it has been found that benign tumours twist more easily than malignant ones.

Although ovarian cyst-induced torsion is most common in women of reproductive age, more than half of premenarchal girls have normal ovaries despite torsion. About 10–20% of cases of ovarian torsion happen during pregnancy, usually between weeks 10 and 17. (4)

Presentation in a clinical setting:

- Abdominal or pelvic pain that appears suddenly and may be restricted to the lower abdomen.
- vomiting and nausea.
- Abdominal examination may reveal localised guarding and widespread abdominal tenderness in addition to low-grade fever and tachycardia.

Making a diagnosis

1. Symptoms.
2. A clinical examination that includes vaginal and abdominal evaluation.
3. A color Doppler ultrasound examination.
4. A CT scan.
5. An MRI.
6. Laparoscopy.

Differential diagnosis

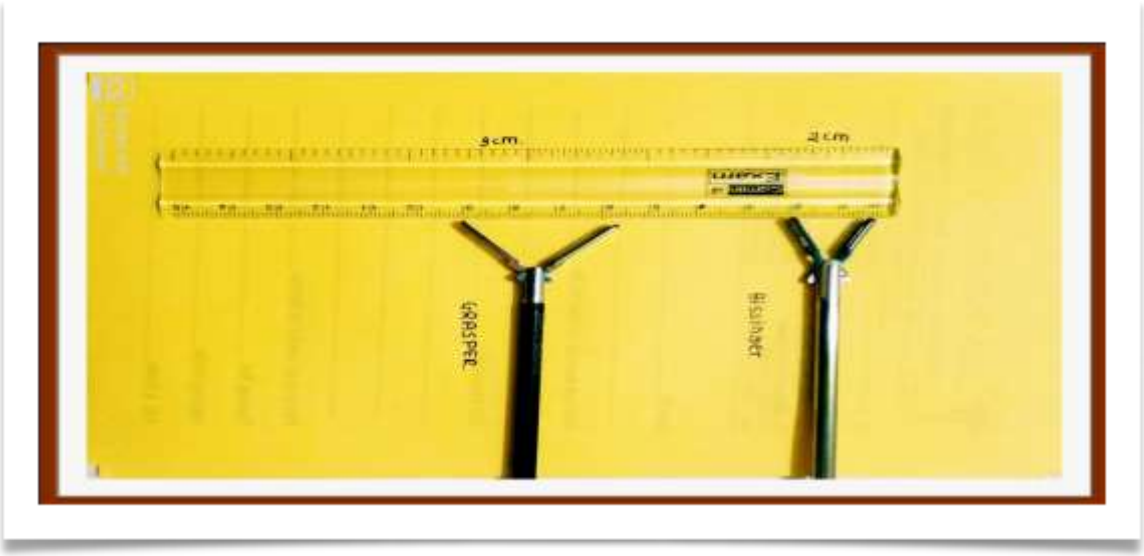
- Nonmigratory pain, bilateral fornicial tenderness upon examination, and the usual lack of nausea and vomiting are the hallmarks of pelvic inflammatory disease.
- In the early stages, appendicitis pain usually manifests as migratory pain. It affects women under 40 and is linked to leukocytosis, nausea, vomiting, and localised tenderness in the right iliac fossa.
- Although torsion pain and renal colic pain can be similar, colic pain is distinguished by intense, sporadic, and sharp sensations that are occasionally accompanied by nausea and vomiting. (4)

- Similar symptoms may also be seen in ovarian cysts or ovarian hyperstimulation syndrome (OHSS) ((5)). The "whirlpool sign," which is highly sensitive for ovarian torsion, can be caused by colour Doppler imaging showing reduced or absent Doppler flow in twisted vessels. (6)

Laparoscopic surgery is considered safe for pregnant women, and the treatment of ovarian torsion is the same for pregnant patients. (9)
Several observational studies show that detorsion is associated with ovarian function preservation when the ovary is necrotic and painful for a long time before it is discovered. In these situations, oophorectomy or salpingo-oophorectomy is recommended. Oophoropexy and the use of oral contraceptive pills may be taken into consideration in order to prevent recurrence.
There are currently no established guidelines for treating adnexal torsion, such as whether to treat premenarcheal girls with detorsion alone, oophoropexy, or ligament plication, or which treatment approach to use. In order to objectively develop guidelines for working on adnexal torsion cases,

Dr. Sachin Naiknaware has proposed a management criterion.
"The following are Dr. Sachin's recommendations:
1. An ovarian cystectomy should be performed if the torsion and the ovarian cyst are 5 cm or larger.
2. Perform ligament plication if the utero-ovarian ligament is 5 cm or larger.
3. For premenarchal or recurrent torsion, apply the "hot dog in bun" technique.
4. Perform PCOD drilling, ligament plication, and six months of ovarian suppression in cases of PCOD with torsion.

A technique for measuring utero-ovarian length objectively.



The two tools that laparoscopic surgeons use the most frequently are bowel graspers and bipolar forceps. It is simple to measure the length of these instruments by using the jaw of the instrument and putting methylene blue on the tip. The bowel grasper's jaws are 3 cm apart, and the Bissinger probe is 2 cm apart. At the moment, laparoscopic surgeons find it difficult to standardise management procedures and compare results due to the lack of objective criteria and clear guidelines. Furthermore, in order to develop a

commonly used tool for the management of adnexal torsion in the near future, comprehensive long-term studies employing these criteria are necessary.

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