

# TORSION OF FALLOPIAN TUBE

## (A Case Report)

by

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Torsion of the fallopian tube is not as common as torsion of an ovarian cyst. Bland Sutton is said to have reported the first case of torsion of the fallopian tube in the year 1890. Since then over 200 cases have been reported. Humphreys (1960), while reporting two cases of tubal torsion, has reviewed the literature fully since 1890. Lygonis (1960), Youssef (1962), Narayana Rao (1965), Bimla Gulati (1965), are among those who have reported cases of tubal torsion.

### Case Report

Patient M., aged 24 years, was admitted on 28-9-1967 with the complaint of abdominal pain of four days' duration and a palpable swelling in the lower abdomen for two years. She was gravida two and para one. The first pregnancy ended in a full-term natural delivery 8 years ago; the second pregnancy ended in abortion at fourth month 4 years ago. Menstrual cycles and menstruation were normal; but for the past two years, she had pre-menstrual and menstrual dysmenorrhoea. Last menstrual period was 22 days ago. She menstruated again two days after admission. Her general condition was good. Haemoglobin—11 gms. per cent. Urine—normal. Temperature 99°F. Pulse 84; blood pressure, 120/70.

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**Per abdomen:** A cystic swelling arising from the pelvis was palpated in the right iliac fossa, about 3" to 4" above the symphysis pubis; the swelling was mobile and not tender. The lateral border was not well defined.

**Per vaginal examination:** Uterus was normal in size, retroverted and deflected to the left. The cystic swelling felt per abdomen was palpable through the anterior fornix and was quite separate from the body of the uterus. Movement of the cervix was not conveyed to the tumour and vice versa. Uterus was sounded and found to be of normal length. A diagnosis of ovarian cyst was made (history of abdominal pain was unfortunately missed).

Laparotomy was done five days after admission and showed a twisted fallopian tube on the right side, there being two turns at the cornual end. The tube was red and distended, the ovary was fleshy, red and enlarged and was situated on the top of the enlarged tube. The left adnexae were normal. Right salpingo-oophorectomy was done. There were no adhesions or free fluid in the peritoneal cavity.

The specimen weighed 400 gms; the tube measured 11 cm x 10 cm x 4 cm. The ovary measured 6 cm. x 3 cm. x 1 cm. (Fig. 1).

**Histopathological examination.** The tube showed organised blood clots and no evidence of infection. The ovary showed corpus luteum and congestion. She was discharged on the tenth post-operative day. She came for follow-up on 8-12-1967. She had two normal menstruations after the operation, and was relieved of the dysmenorrhoea.

### Comments

The age incidence of this condition seems to vary from pre-menarche to post-menopausal age. Auvrey (1929) and Cassidy & Norbury (1911) have reported two cases of torsion, the average age of the patients being 11 years. On the other hand, McIlroy (1910) and Stark (1911) reported two cases in which a twisted tube was seen in patients aged 46 years and in both menstruation had ceased for one year. Michael (1924) has reported a case in a woman aged 45 years. Humphrey's two cases reported in 1960 were aged 18 years and 45 years.

The exact aetiology of tubal torsion is not known. Kellar & Kellar (1959) pointed out the theoretical causes of torsion of the tube as follows:

1. Congenital development of the tube in spiral form.
2. The action of abdominal musculature on the ovaries causing the right ovary to twist to the left and the left ovary to twist to the right.
3. Pre-menstrual tension; veins supplying adnexal region are said to be longer than arteries.
4. Adhesions at the fimbrial end of the tube.
5. The autonomic nervous system causes abnormal peristalsis.

In support of Kellar's first theory, congenital development of the tube in spirals, coiled spirals in foetal and infant tubes have been noted frequently. Spuler (1930) remarked that as the body of the foetus grows the tubes stretch and later elongate. In support of Kellar's third theory, pre-menstrual tension, torsion has been noted frequently in association

with menstruation. Payr (1906) thought that menstruation and a long mesosalpinx were the main causes of tubal torsion.

Yousseff and others (1962), reviewing 6 cases of tubal torsion, said that it occurs more often in the normal tube than in diseased tubes. Distension of the tube with serosanguineous fluid in two of his cases is believed to have resulted from torsion. Thomas (1954) described a case of torsion of a hydrosalpinx in a patient aged 14 years. Microscopical examination revealed no evidence of recent sepsis though the patient had recurrent attacks of abdominal pain. Thomas assumed that the first episode of pain was probably due to partial torsion of the normal tube which settled down spontaneously after causing sufficient tissue reaction to produce hydrosalpinx. Regad (1933) reviewed 201 cases of tubal torsion and found that in 24 per cent of cases there was a previous hydrosalpinx and in 14 per cent of cases tumour, infection and ectopic pregnancies. Narayana Rao (1965) has reviewed 46 cases of torsion of uterine adnexae, out of which 5 cases were of torsion of hydrosalpinx. The case of tubal torsion reported by Bimla Gulati (1965) also occurred in a hydrosalpinx.

Humphrey's cases of tubal torsion had some relation to trauma. One of his cases developed sudden pain while getting down from the bus and the other while walking briskly. McIlroy (1910) stated that trauma applied to a pelvic organ is tangential and so has a twisting movement and often symptoms appear after unaccustomed trauma. Shute (1932)

quotes many authors who claim that trauma plays a definite part in tubal torsion.

In the case reported, she was aged 24, and had noticed a swelling per abdomen for two years. Her family doctor also had noted the cystic tumour two years ago, when he carried out a routine examination of her abdomen for some medical condition. He had advised her to consult a gynaecologist, but she did not do so. There is no doubt that the swelling noted by the patient as well as the doctor two years ago was the distended right fallopian tube. The exact cause of this distension is not clear. It could be a hydrosalpinx though its shape was not the typical retort shape of a hydrosalpinx. Histopathological examination of the specimen did not reveal evidence of infection. But this does not disprove that it was a case of hydrosalpinx, for inflammatory reaction is seldom seen in cases of old hydrosalpinx. She had pre-menstrual and menstrual dysmenorrhoea for two years prior to the operation, which was cured after the operation. Pain was not at all prominent in this case. Youssef *et al* are of the opinion that tubal torsion is an acute abdominal emergency calling for immediate laparotomy. But in the case reported the pain was not prominent; the patient was quite comfortable on and after admission. In retrospect, a careful elicitation of the history showed that four days prior to admission, she had acute abdominal pain which had subsided at the time of admission. It is well to consider tubal torsion in the differential diagnosis of all subacute abdominal conditions, with unilateral lower abdominal pain.

The treatment of torsion of the tube is salpingectomy whenever the tube is damaged. If torsion is less than 360 degrees and if the tube regains its normal colour on untwisting, it can be preserved after taking precautions to fix the tube to prevent a recurrence. Commonly adnexal torsions may untwist; it is probable that many transient pains are produced this way and their cause is never diagnosed (Humphrey 1960). The ovary should not be removed unless it is damaged. In this particular case the ovary also was damaged, though no torsion of the ovary was noticed.

#### Summary

A case of torsion of the fallopian tube is presented. The etiology, clinical features and diagnosis are discussed.

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*Figs. on Art Paper V*