

ECTOPIC PREGNANCY FOLLOWING TUBAL LIGATION

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In recent years there has been a considerable increase in the number of tubectomy operations. Ectopic pregnancy, due to failure of tubectomy, is also no more so rare as it was in the past. Previously, number of such cases have been reported by Shah and Swami, Bhasin and Hingorani, Gulati *et al* etc.

This paper analyses 5 cases of ectopic pregnancy following tubal ligation which were treated at Zanana Hospital, Udaipur during a period of 2 years, from 1979 and 1980.

Incidence

During the same period a total of 46 cases of ectopic pregnancy were treated. Hence 10.8% cases of ectopic pregnancy followed tubal ligation or 1 out of 9 cases of ectopic pregnancy was after tubal ligation.

Observations

All the 5 cases were between 25 to 35 years of age. Three cases had amenorrhoea of 5 to 8 weeks. History of scanty last period was present in 1 case. Only 2 cases had irregular vaginal bleeding following amenorrhoea. All the patients were admitted with variable degree of

pain in lower abdomen. Tenderness in the lateral fornix was present in 4 cases, while 1 case had only a vague fullness in the pelvis. Two cases were admitted with provisional diagnosis of P.I.D. and hence the final diagnosis was delayed by 3 to 5 days. Culdecentesis followed by laparotomy was done in all the cases. Three were treated as emergency cases because the clinical picture was acute and strongly suggestive. Two cases were operated after a course of anti-biotics and anti-inflammatory drugs as the clinical picture was not strongly suggestive of ectopic pregnancy.

Details of tubal ligation, interval between tubal ligation and ectopic pregnancy and type of ectopic pregnancy are as shown in Table I.

On the affected side, salpingo-oophorectomy was done in 4 cases and total salpingectomy was done in 1 case. On the opposite side, tubal stumps were well apart in 4 cases and in 1 case there was doubt of reunion. Total salpingectomy on the opposite side was done in 3 cases.

Comments

In all cases ectopic pregnancy was due to recanalisation of the fallopian tube after tubal ligation. Some of the known causes of recanalisation are incomplete ligation due to faulty technique, use of nonabsorbable suture in Pomroy's technique which can facilitate the formation of

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TABLE I

S. No.	Type	Method	Interval between T.L. & ectopic pregnancy in yrs.	Type of ectopic pregnancy
1.	Puerperal	Pomroy's	3	Tubal Abortion Rt.
2.	Puerperal	Modified Pomroy's	2½	Ruptured Ampullary pregnancy Rt.
3.	Puerperal	Modified Pomroy's	1½	Ruptured Ampullary pregnancy Rt.
4.	Abdominal with MTP	Pomroy's	5	Tubal Mole Lt.
5.	Vaginal with MTP	Fimbriectomy	6	Ovarian Pregnancy L.

new canal, error in identification of the tube, and breakdown of suture line with formation of utero-tubal or tubo-peritoneal fistula. There is higher failure rate when the operation is done during early postpartum period as compared to when the operation is done along with some gynaecological operations.

In the present series, 4 cases had tubal ligation done during puerperium, while 1 had with M.T.P. In 4 cases, the cause may be incomplete ligation of the tube, while in the 5th case it appeared to be tubo-peritoneal fistula resulting in ovarian pregnancy. Even though incomplete ligation appears to be the most probable cause in all the cases why it took 1.5 to 6 years for pregnancy to occur is difficult to understand.

In all the cases pregnancy occurred in the distal part of the tube or in the ovary, while interstitial and isthmic parts were unaffected. This again indicates that the

ligation was done distally or in the ampullary portion. This part of the tube is comparatively more mobile and has got a wider lumen which may escape complete occlusion. The recanalised part may have so narrow a lumen so as to permit entry of spermatozoa but not of fertilised ovum as postulated by Kalchman and Meltzer (1966). Part of the fallopian tube chosen for ligation and manner of recanalisation as postulated by Kalchman and Meltzer (1966) may explain why distal part of the tube was involved in 4 out of 5 cases.

In the end it is emphasized that occurrence of ectopic pregnancy, inspite of history of sterilisation operation in the past, should be kept in mind whenever the clinical picture is suggestive.

References

1. Kalchman, G. G. and Maltzer, R. M.: *Am. J. Obstet. Gynaec.* 96: 1139, 1966.