POST LIGATION TUBAL PREGNANCY

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SUMMARY

23 cases of Post-sterilisation ectopic gestations were treated out of 245 cases of ectopic pregnancies (9.3%) during a period of 3 years. Out of these 23 cases 15 had minilaparotomy (modified Pomeroy's method) sterilisation and rest 8 had laparoscopic ring application. Menstrual abnormalities (56.9%) and Pelvic infections (43.5%) were the associated risk factors. Distal segment was the commoner site of ectopic gestation (8%) due to recanalisation of the tube. In all cases salpingectomy of the affected tube and religation of the other tube were undertaken to avoid recurrence of ectopic on the opposite side. The authors warned that the diagnosis of ectopic gestation may be missed because of previous sterilisation. Hence diagnosis of ectopic gestation should strongly be considered when there is clinical evidence to suggest suoh diagnosis.

INTRODUCTION

Sterilization in women has been accepted as a national programme for control of population explosion. This is considered to be the safest permanent method of female contraception. But even then both uterine and extrauterine pregnancies have been reported after sterilization.

Moir (1964) mentioned 0.4% to 0.7% as the incidence of uterine pregnancy following sterilization. The incidence of tubal pregnancy is even rare. Under such circumstances the diagnosis of ectopic pregnancy may be delayed as these women are presumably 'protected against conception' because of previous sterilization procedures. In view of the rarity of ectopic pregnancy following sterilization and eventual fatality in case of late diagnosis the current report is presented. A total number of 23 cases were treated at the Eden Hospital Medical College, Calcutta over the period from January 1990 to

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Accepted for Publication on 19.10.95

December 1992, a period of 3 years.

MATERIALS AND CLINICAL EVALUATION

A total number of 23 cases of post-serilization ectopic gestations were treated at the Eden Hospital, Medical College, Calcutta during the period from January 1990 to December 1992 (a period of 3 years).

(TableI) During this period a total number of 245 cases of ectopic gestations were recorded. Out of these 23 cases had

Table I

Number of ectopic gestation admitted during the period	245
Number of postligation tubal pregnancy	23
Incidence	9.3%

Table II
ANALYSIS OF THE CASES IN RELATION TO AGE AND PARITY

	Age Group		
	20-25	26-30	31 and above
Cases	6	14	3
	Parity		
	0-2	3-5	6 and above
Cases	9	11	3

Table III
RISK FACTORS

Risk factors	No. of cases	Incidence
Menstrual abnormality -		
Amenorrhoea	10	43.5%
Irregular scanty	13	56.9%
Pelvic infections	10	43.5%

TABLE V
SITE OF ECTOPIC GESTATION IN THE TUBE

Site	No.of cases	Incidence
Proximal segment of the sterilization site	3	13.0%
Distal segment of the sterilization site	30	87.0%

Table IV
NATURE OF STERILIZATION

Nature of operation	No.of cases		Incidence
a) Minilaparotomy :			
i) Interval	6		
ii) Postpartum	6		
iii) With MTP	3	15	65.2%
b) Laparoscopic ring application	8		34.7%

previous sterilization operation. Thus 9.3% was the incidence of previous sterilization as an aetiology of ectopic gestation.

(Table II) Maximum number of cases i.e. 20(87%) occurred in the age group of 20 to 30 Majority of the cases i.e. 14 out of 23(60.8%) occurred in higher parity viz. parity 3 and above.

(Table III) Out of 23 cases in 10 cases there was definite missed period varying between 6 weeks to 10 weeks. Rest of the cases i.e. in 13 cases there was history of scanty irregular menstruation prior to the tubal gestation.

(Table IV) Out of 23 in 15 cases of minilaparotomy sterilization Pomeroy's technique was followed.

(Table V) The distal segment of the tube was the far more commone site of the ectopic gestation than the proximal segment.

DIAGNOSTIC PROCEDURES AND MANAGEMENT

Ten cases out of the 23 were admitted as emergency with features of shock. In these cases haemoglobin estimation and blood grouping, crossmatching and

arrangment for blood transfusion were undertaken. Immediate laparotomy was used as both diagnostic and therapeutic measures. In rest of the cases several diagnostic procedures were used : flank puncture, culdocentesis, immunological pregnancy test, pelvic ultrasonography and diagnostic laparoscopy apart from routine blood and urine test.

In all the cases, salpingectomy or salpingo-oophorectomy of the ectopic pregnancy side and re-ligation of the other side were routinely performed.

DISCUSSION

Sterilisation is s reliable permanent method of contraception with a low incidence of failure rate. However, failure may occasionally result in ectopic gestation. Hence a previous history of ligation operation does not rule out of diagnosis of ectopic pregnancy. In this study, 23 cases of poststerilization ectopic gestation have been recorded during a period of 3 years (1990-1992). During the same period 245 cases of ectopic pregnancies were treated in our hospital which gives an incidence of 9.3% as poststerilization aetiological factor for ectopic gestation. This report is almost similar to previous workers like Harralson et al (1973) and Brenner et al (1977).

Postligation ectopic pregnancies may be due to recanalisation of the tube with the production of a narrow lumen sufficient to allow the passage of spermatozoa but not the fertilised ovum. Under such circumstances the implantation occurs in the distal segment of ligation. In this study, out of 23 cases, the gestation sac was situated in the distal segment in 20 cases and in the proximal segment in 3 cases. This was compatible with the figures presented by Weekes & Hutchins (1976). A review of the literature revealed that postligation ectopic mostly followed laparoscopic sterilization (McCausland, 1980). In this study in 8 cases application of Falope ring by laparoscope was the method of sterilization. The formation of tubo-peritoneal fistula when silk is used as suture material for ligation is often implicated as a causative factor. Hence in order to reduce the incidence of post-serilization ectopic Irving and Uchida method offer advantages over the commonly practised Pomeroy's technique as followed in all the minilaparotomy cases. With regard to laparoscopic sterilization the principle of undertaking small number of cases by one surgeon in one sitting may be followed. Moreover, better type of rings or clips should be used. This policy may reduce the failure rate as also the incidence of ectopic gestation following laparoscopic sterilization.

In all cases of poststerilization ectopic gestations salpingectomy of the affected tube and religation of the other tube were undertaken to avoid recurrence of ectopic on the opposite side. Chakraborti and Shardlow (1975) reported repeat ectopic on the unaffected tube following unilateral salpingectomy (affected tube) in one of their 12 cases.

The most perplexing problem in these cases is the diagnosis which may be missed because of previous sterilization. Hence diagnosis of ectopic should strongly be considered when there is clinical evidence to suggest ectopic pregnancy. This would enable to diagnose early and early treatment will avoid maternal death.

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