

Does Tubal Sterilization offer a Permanent Solution?

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Abstract

Tubal sterilization is the permanent and effective contraception method. Although pregnancy after sterilization is uncommon, it can occur and may be ectopic. One of the complications after tubal ligation is ectopic pregnancy.

It is a prospective study conducted at Saveetha Medical College obstetrics and Gynaecology Department. We report series of ectopic gestation following sterilization during the period — June 2012 to June 2013. Various data were analysed, namely age at which sterilization was done, method of sterilization done, how many years later ectopic was developed, type of presentation, management offered to them.

There were total 12 ectopic pregnancies during the study period. Out of this 11 ectopic were subsequent to tubal sterilization. Maximum age distribution were 7 cases between 25–35 yrs, 5 cases were of 36–40 yrs, none above 40 yrs. Nine cases occurred within 10 years, after 10 yrs two cases. The highest incidence of ectopic were in 8 cases was following Puerperal sterilization.

In 5 cases the common complaint was amenorrhea with pain abdomen and urinary tract infection in 2 cases. Common site of ectopic was ampullary region in 8 cases. All of them were ruptured ectopic due to delay in diagnosis. Ten cases underwent bilateral salpingectomy; one case of Cornual ectopic gestation hysterectomy and one case of primi salpingectomy of the affected side done. Women undergoing tubal sterilization should be informed that ectopic pregnancy may occur even long after the procedure as shown in our study. Awareness regarding this should be there among attending doctors and health personnel.

Keywords: Risk for ectopic pregnancy, Tubal ectopic, Tubal sterilization

1. Introduction

Among the various methods of contraception, tubal sterilization is on the increase. This can be performed at any time, but at least half are performed in conjunction with a cesarean delivery or after vaginal delivery and are termed as Puerperal Sterilization. Although pregnancy after sterilization is uncommon, it can occur and may be ectopic. One of the complications after tubal ligation is ectopic pregnancy. Literature reports a 5–90% incidence of ectopic pregnancy after failed tubal sterilization. Information on effectiveness of tubal sterilization as contraception is available, but it has been difficult to determine the risk of ectopic pregnancy following tubal sterilization. Ectopic pregnancy is the leading cause of maternal death in the first trimester.

2. Aim of the Study

To estimate the risk of ectopic pregnancy in women who had undergone tubal sterilization.

3. Materials and Method

This is a prospective study conducted at the Obstetrics Department of Saveetha Medical College, Tamil Nadu, India. We were presented with a series of ectopic gestation following sterilization during the period from June 2012 to June 2013. Various data variables were analyzed such as: age at which sterilization was done, method of sterilization done, any risk factors, how many years later ectopic was developed, type of presentation and the management offered to them.

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4. Results

During the study period, 12 cases of ectopic gestation were admitted and 11 which followed tubectomy. When age distribution was considered, maximum age distribution was between 25–35 yrs (7 cases) and between 36 to 40 years (5 cases) and no case after 40 years. When the time interval between sterilization and ectopic gestation was taken into consideration, 3 cases showed an incidence of ectopic pregnancy within 5 years, 6 cases in 6 to 10 years and 2 cases after 10 years.

Regarding the type of sterilization, maximum cases (8 numbers) had puerperal sterilization, 2 were after concurrent sterilization with caesarean section and 1 had interval sterilization.

With reference to clinical presentation, 5 cases of amenorrhea with abdominal pain, 4 cases with short cycle cum heaviness of the lower abdomen and there were symptoms of urinary tract infection in 2 cases. The sites of ectopic in our study were ampulla (8 cases), isthmus (2 cases) and cornual (1 case).

5. Regarding the type of Management

10 cases had salpingectomy (Figure 1) and contralateral salpingectomy; one case was of cornual ectopic hysterectomy; and primi ectopic side salpingectomy was performed for 1 case. All of them had one unit of blood transfusion.

6. Discussion

After tubal sterilization, infertility is not conferred invariably¹. After sterilization when women develop signs and



Figure 1. Salpingectomy.

symptoms of pregnancy, ectopic pregnancy must not be ruled out. Incidence of pregnancy after sterilization is, although relatively small do occur, and a majority of them are ectopic and tubal in origin. In our study bilateral salpingectomy was performed for all ectopic pregnancy following a sterilization procedure¹.

All our cases were admitted as emergency since there was delay in diagnosing the ectopic, they had been treated for pain abdomen in 5 cases, and for urinary tract infection in 2 cases by Private practitioners. These ectopic cases occurred after a lapse of 6 to 10 years, after 10 years two cases. In our study, most of the cases occurred between 6 to 10 years after sterilization and were not limited to the first or two².

Procedural technique is probably a critical determinant of the risk of sterilization failure. In our study, we found that the risk of ectopic following Puerperal sterilization was in 8 cases. It is because tubes are edematous, friable and congested thus increasing the chance of incomplete occlusion of the tubal lumen. Estimated failure rate is 0.25%–2% for the Pomeroy procedure³. To avoid failure extra care to be has to be taken during Puerperal Tubal sterilization.

Explanation for increased risk following puerperal sterilization is tuboperitoneal fistula through which sperm may pass, but the fertilized ovum cannot pass and implantation occurs predominantly in the distal segment of the tube⁴.

After sterilization, during the process of recanalization, blind pouches and slit like spaces are formed and implantation occurs in these areas resulting in ectopic gestation and movement due to fluid within the remaining tubal segments influence the implantation¹.

In our study 5 patients had a presentation of pain abdomen, urinary tract infection in 2 cases short cycle with heaviness in lower abdomen in 4 cases and had been treated by private practitioners where delay had taken place in the early stages of making a diagnosis and all cases presented to our department as emergency, because ectopic is rarely diagnosed in differential diagnosis of acute pain abdomen or pelvic pain following sterilization².

As mentioned by Madugu et al.⁵ all women who undergo tubal sterilization should be adequately counseled about the possibility of ectopic gestation.

In our study all 11 cases were not diagnosed by private practitioners as ectopic. Hence both doctors and other medical personnel involved in the care of women of child-bearing age should be aware of this complication. They

should remember that even many years after sterilization ectopic can occur. “High degree of suspicion is an index for diagnosis of ectopic gestation” following tubal sterilization.

Findings of our study indicate the need for proper counseling of the patient regarding chances for ectopic. All eleven cases turned up as ruptured ectopic and all of them had been treated by private practitioners for pain abdomen and urinary tract infection and hence doctors taking care of women of reproductive age should be aware of this complication.

7. Conclusion

It is important to counsel the women who are about to be sterilized as to both the possibility and risk of extra uterine as well as intrauterine pregnancy subsequent to all methods of sterilization. Even after many years after sterilization there is a possibility of the occurrence ectopic pregnancy which has been amply brought out by our study.

8. Acknowledgement

The author is grateful to the Chancellor, the Vice-Chancellor and the Director & Dean of Saveetha Medical College, for their encouragement and permission to utilize hospital data.

9. References

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