

## Effectiveness of Laproscopic Surgeries in Treating Infertility Related To Endometriosis



### Medical Science

**KEYWORDS :** Endometriosis, laparoscopy surgeries, Infertility.

**Dr.PRAGATI TRIGUNAIT** SENIOR RESIDENT, OBG S.M.S MEDICAL COLLEGE

**Dr.SONAL AGARWAL** SENIOR RESIDENT. OBG SMS MEDICAL COLLEGE

### ABSTRACT

*AIM:- Effectiveness of laproscopic surgeries in treating infertility related to endometriosis.*

*METHODS: In our study 30 pateints treated with laparoscopic surgical procedure for treatment of infertility were analyzed. After the treatment pateints were observed for 12 months during which frequency of pregnancy were observed ( both natural and assisted pregnancy).*

*RESULTS:-In 9 out of 30 who underwent laparoscopic procedures clinical pregnancy was diagnosed.*

*6 out of these patients became pregnant spontaneously, 3 out of 30 patients became pregnant with assisted reproductive technologies.*

*CONCLUSION:-Operative laparoscopy is an efficient method for treating infertility related to endometriosis; at stage III rAFS it seems to be most effective.*

*The period for expectant management after a surgical procedure should last 6 months.*

### INTRODUCTION

Endometriosis is defined as presence of endometrial tissue (glands and stroma) outside uterus. Most frequent sites are pelvic viscera and uterus. It is estimated to occur in 10% of reproductive age women .An incorrect location of the endometrium and its biochemical activity initiate an inflammatory reaction which results in pelvic pain. This pain intensifies during menstruation, dyspareunia, staining, non-cyclical bleedings. The condition also presents problems related to infertility. Research shows that in 25–50% of women, infertility is a result of the presence of endometriosis . The probability of pregnancy in an infertile woman who additionally suffers from endometriosis is approximately twice as low than in relation to women with idiopathic infertility . Among the biological mechanisms responsible for the decrease in fertility in women with endometriosis are: anatomical changes in the architecture of the pelvis minor, disorders of the transportation function of the oviduct, immunologic balance within the peritoneal cavity, changes in cells functionality, retardation of ovulation, displacements of the sperm and ovum, as well as difficulties with embryo implantation . Recent research proves the relation between infertility in women with endometriosis, both with lesions in the ovary and in the endometrium. The influence of endometriosis on spermatozoa is also significant. Under the influence of secreted inflammatory, growth, and hormonal agents, spermatozoa decrease their mobility and their DNA is also fragmented

Data from large cohort and case control study indicate an increased risk of ovarian cancers in women. Evidence from clinical series consistently demonstrates that the association is confined to endometrioid and clear cell type of cancer.

In the diagnostics of endometriosis, laparoscopic imaging of the pelvis is regarded as the gold standard . Biochemical methods have a limited significance due to the lack of a marker specific for endometriosis . Pharmacotherapy of endometriosis does not improve fertility sufficiently . Surgical treatment decreases pain ailments and improves fertility; however it may lower the ovarian reserve and at the same time increase the risk of premature termination of ovarian functions . The ablation of endometrial lesions, together with the reduction of adhesions, increases the number of women who become pregnant in relation to the use of diagnostic laparoscopy itself. Moreover, during a surgical procedure there is a possibility to assess and localise lesions thoroughly.

### AIMS AND OBJECTIVE-

The aim of the study was assessment of the effectiveness of laparoscopic surgeries for removing endometriosis implants in the treatment of infertility among women treated at S.M.S MEDICAL COLLEGE from JUNE 2014 to JUNE 2015

### MATERIAL AND METHODS-

In our study 30 pateints treated with laparoscopic surgical procedure for treatment of infertility were analyzed. Pateints were also classified in four stages as per staging of Revised American society for reproductive medicine-classification of endometriosis 1985.

After the treatment patients were observed for 12 months during which frequency of pregnancy were observed( both natural and assisted pregnancy).

### OBSERVATIONS AND RESULTS-

30 female patients with primary infertility, in whom endometriosis was diagnosed and remedied

without operation, were hospitalised in the clinic. In the patients who underwent a surgical procedure, the stage of

endometriosis was defined on the basis of an intraoperative assessment according to the rAFS scale.

On this basis, thosediagnosed were: stage I – 2(6.6%), stage II –6(20%), stage

III – 12(40%) , stage IV – 10 (33.33%). Subsequently, the diagnosed lesions were completely removed surgically. After the procedure, the patients underwent a 12- month-long observation.

In 20 out of 30 (66.66%) patients who underwent the surgical procedure, a clinical pregnancy was diagnosed.

11 out of 30 (36.66%) women became pregnant spontaneously,9 out of 30 (30%) patients became pregnant as a result of the application of assisted reproductive technology (ART).

Data tabulated in Table no- 1 shows the number of patients who became pregnant in relation to the stage of endometriosis(without ART).

Total 11 out of 30 pateints conceived spontaneously(without ART). In stage-I, 1 out of 2(50%) patient conceived. In stage-II,1 out of 6(20%) conceived, in stage-

III 4 out of 12(31.8%) conceived, and in stage-IV 5 out 10(5.2%) patient conceived.

Data tabulated in Table no-2 shows the number of patients who became pregnant in relation to stage of endometriosis( with ART)

Total 9 out of 30 pateints conceived (with ART). In stage-I, 1 out of 2(50%) patients conceived, in stage-II, 2 out of 6(40%) patient conceived, in stage-III 4 out of 12(36.4%) patient conceived, in stage-IV 2 out of 10(21%) patient conceived.

**DISCUSSION-**

Analysis of the latest research concerning the operative treatment of infertility caused by endometriosis indicated that no more than a quarter (10–25%) of women who underwent a surgical procedure due to peritoneal endometriosis, deep infiltrating endometriosis (DIE), lesions in deep perineal space, or recurring ovarian cysts of endometrial origin, would become pregnant spontaneously.

The treatment of endometriosis-related infertility is dependent on the age of woman, the duration of infertility, the stage of endometriosis, the involvement of ovaries, tubes or both in the endometriosis Process, previous therapy, associated pain symptoms, and the priorities of the pateint, taking into account her attitude toward the towards the disease, cost of treatment, her financial means and the expected results

Surgical management of infertile women with minimal to mild endometriosis is controversial. Based on the results of a meta-analysis of two randomized trials ablation of endometriotic lesions plus adhesiolysis to improve fertility in minimal to mild endometriosis effective compared to diagnostic laproscopic alone .

**TABLES-**

**TABLE NO-1**

**THE NUMBER OF PATEINTS WHO BECAME PREGNANTIN RELATION TO THE STAGE OF ENDOMETRIOSIS(WITHOUT ART)**

	STAGE I	STAGE II	STAGE III	STAGE IV
TOTAL NO. OF PATEINTS	2	6	12	10
TOTAL NO. PATEINTS WHO BECAME PREGNANT	1(50%)	1(20%)	4(31.8%)	5(5.2%)

**TABLE NO 2**

**THE NUMBER OF PATEINTS WHO BECAME PREGNANT IN RELATION TO STAGE OF ENDOMETRIOSIS ADVANCEMENT(WITH ART)**

	STAGE I	STAGE II	STAGE III	STAGE IV
TOTAL NO. OF PATEINTS	2	6	12	10
TOTAL NO. WHO BECAME PREGNANT	1(50%)	2(40%)	4(36.4%)	2(21%)

**CONCLUSION-**

Operative laparoscopy is an efficient method for treating infertility related to endometriosis; at stage III rAFS it seems to be most effective.

The period for expectant management after a surgical procedure should last 6 months.

The obtained results prove that the highest percentage of spontaneous pregnancies may be most often observed until the 6th month following the surgical procedure. In the

later period, the number decreases.

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