OUTCOME OF LAPAROSCOPIC RE CANALIZATION AFTER PREVIOUS STERILIZATION SURGERY

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Abstract:

however the fallopian tube discontinuity is the commonest type of sterilization in developing[1]country and has being considered as irreversible method of sterilization . many women under go reversal of sterilization.[2] the laparoscopic reanastmosis has revealed high pregnancy rate[3],as compared with laprotomy the advantage less complication and short recovery time, the more dynamic approach over comes the limitation of open surgery making the laparoscope the last for tubal surgery. the pregnancy rate for laparoscopic tubal reanastmosis 76 percent with this[ 4]. validation the technique now employed as a complete solution for all tubal surgery .the out come affecting by age of patient length of remaining tube for re canalization[ 5]and method of previous ligation and the time interval between sterilization and recanalisation so laparoscopic recanalisation were good and the results depend on the patient selection , operative technique [6].

Key word:

laparoscope, recanalisation, previous sterilization

Introduction:

laparoscopic tubal reanastmosis is one of the newest procedures. 8 . tubal sterilization is the most common operation in women any where, in which there is block of path way between egg and sperm and it is effective method of contraception , and it causes least tissue destruction like pomroy , clips and rings so these method amenable for tubal reversal , the tubal ligation considered an important constituent of national family planning and its performed in a young[5] women of low parity however some of them demand reversal for social and psychological causes , many of them have the operation electively ( 7) .the fallopian tube10 are symmetrical paired tubular organ that connect the peritoneal cavity to endometrium in the uterine cavity and its attached to lateral wall of uterus just above the round ligament following fertilization the embryo continue traveling through fallopian tube and the fallopian tube gives the environment and condition for conception , fallopian tube divide into four parts the intra mural , the isthmus ,the ampula and infundibulum and fimbria ,average length of the tube is 10 cm and the width from 0.1to 1cm from uterine attachment till the fimbria the fallopian tube receive blood supply from tubal branches of uterine artery and small branches from ovarian artery and receive sensory and autonomic and vasomotor nerve fiber from inferior hypogastria plexus . reversal of sterilization is micro surgical procedure and has very high success rate specially if it is done by highly trained and experienced surgical sub specialist, women who have previously under go tubal ligation , cautetization , tubal clip application are exallant candidate for micro surgical tubal reversal. laparoscopic tubal anastmosis has become the standard care in tubal reposition and it is an out patient surgery so its coasty effective [8] the common site of sterilization is mid segment of the tube[ 6]. age of the women also one of the factors affecting the result ,they observed that the younger women have longer tubes and became pregnant earlier than the old.

Aims the aims of this study is evaluating t he efficacy safety and out come of laparoscopy surgery for tubal re canalization after sterilization also determine the factors affecting the reversal and influence the out come.

The following parameters were evaluated the out come :

1. operating tine
2. operating technique
3. operative complication
4. pregnancy rate
5. hospital stay
6. cost
7. quality of life analysis

Material and method:

Literature search was performed using search engine Google, high wire press, Springer link, and library facility available at laparoscopic hospital. Following search terms used: laparoscopy, recanalisation, tubal sterilisation.

Criteria of selection of papers were upon statically analysis. Institute if they were specialized for laparoscopy. The way of management and operative technique.

MANGMENT

Initial history, physical examination, and laboratory evaluation should focus on risk factors. Age is important, the menstrual history is essential to evaluate the ovulatory function. So, for women above 35 years hormonal assay like FSH, LH, estadiol is reflect the age factor. Also, sperm count for the partner to make sure no any un expected problem. History of pelvic surgery and type of the sterilisation, the time interval between sterilisation and reversal, length of remaining healthy tube, combined use of hysterosalpingiogram and laparoscopy with dye use in diagnosis of the site of previous tubal sterilisation. Some time it may give rise to false diagnosis because of tubal spasm. Some of authors have suggested use of muscle relaxant such as terbutalin during the examination[11].

In addition to this, routine check of patient like blood test and x-ray and ultrasound and semen analysis. Patient with tubal sterilisation need meticulous investigation to avoid the patient high morbidity associated with missed ectopic pregnancy. 12 tubal re canalization procedure were carried out after menstrual cycle. The tubal reanastmosis is rejoining of fallopian tubes, in corneal reanastmosis temporary splinting of cut end was done by rompsnon vensection canula or epidural catheter and under 4 magnification power end to end anastmosis was done (muscular-muscular and sero-muscular).[19]. With use of 8-0 suturing, some use three stitches technique with tubal canulation. They were use hydro cortisone irrigation during surgery with post operative antibiotic.

procedure:

The surgery done under spinal or general anesthesia, the patient in lithotomic position. Attatch uterine manipulator with chromo perturbation operation start as diagnostic laparoscopy through single supra pubic trocar and if surgery established two additional 5mm trocar in right hypochondria and other in left upper quadrant the order of operation same as in open microsurgical operation start with transaction of tubal stump then remove scar tissue, approximate the meso salpenx, anastmose muscle and mucosa then approximate the serosal layer, dilute vaso persin 1 in 50 injected for hamostasis and hydro dissection the proximal part grasped with fine forceps and cut transversally with fine scissors the patency of tube determined leakage of indico carmine dye infused through uterine manipulation the occluded segment of the distal stump is raised with forceps and tube resected peripendially at most proximal edge creating lumen of appropriate diameter resection of scar tissue is prefer with micro needle or micro scissors the meso salpenx sutured with 6-0 pds by using 5mm micro needle holder each suture is tide intra corporally with three throws the muscle layer sutured by 7-0 pds and the tubal patency checked by identifying the flow of indico carmine dye through fimberia, warm lactated ringer to suture site for irrigation the operating field, serosal layer approximated with 6-0 pds interpreted suture the tissue planes alignment by using a traumatic technique by prolene 8-0 four suture at 12, 6, 3 and 9 clock were taken in the muscularis layer and serosa avoid mucosa and the knots faced serosa then heprinazed with normal saline 5000u/l as a constant irrigation. The patency was assured intra operatively by methyl in blue injection the new technique of microscopical tubal reanastmosis is highly successful surgical procedure. There are multiple factor affecting the out come of procedure like length of tube left to be repaired the acceptable length 4 to 6 cm during operation we can give the patient prophylactic intravenous anti biotic and sedation as single dose to decrease post operative complication. Highly advance technique da vanici in which re attach the fallopian tube and the women became pregnant after 1 to 8 cycle it is perfect tool for re joining the fallopian tube it is eliminate the potential proplems which inhernt by open surgery it can do it as out patint procedure in this procedure the pomero y method ther is cut and tie and it occur during casarean section or after vaginal delivery in this case use look for 1 to 2 incision getting below the navel portion of tube in this method we cut 0.5 to 1 cm from center of fallopian tube and tying of f the cut end the advantage of this method that the tube was good physiological health the dis advantage that the surgeon might cut big segment and lower success rate. Other method of tubal sterilisation reversal by da vanci in which the tube was sterilized by electric cautery in this method they insert small telescope below navel tube grasped in middle portion until become white and the heat of cautery spread up and down and some time dysteroying the majority of tube In clming and ring method of ligation.
there were high success rate so success rate in da vinci about 60 to 70 percent and risk of tubal pregnancy 10 percent n (16.)the one stitch technique give good approximation with short period of time (13)

The surgical approach to fallopian tube reconstruction in three parts the intramural interstitial obstruction this treated by tubal re implantation and . the isthmic portion occlusion by repairing isthmo isthmic reanastmosis and the mid portion which is frequent for tubal sterility the procedure is by take the occluded part and repeatedly resected the first the proximal then distl until the tubal lumen is identified the patency of tube confirmed by retrograde chromotubation (proximal stump) and threading a piece of thin suture from the fimberial end toward area of anastmosis

Conclusion. with the increase the number of sterilization over the world so the need for their reversal is also growing. The Laparoscopic approach has several advantage over laprotony but it require specific skills such as hand eye coordination while viewing procedure on video monitor and handling delicate instrument in restricted area. The site of tubectomy hence the site of recanalization its important factor in tubectomy reversal, the isthmus of fallopian tube is ideal site of sterilization reversal so high percent of pregnancy after isthmo -isthmic recanalization the surgical outcome of laparoscopic was benefit in terms of life quality and it were achieved through better laparoscopic technique and careful screening for surgical anastmosis regarding pregnancy out come there were good result over all. the laparoscopic tubal surgery providing continuous magnification and closed environments making laparoscopy complete surgical tool (4) also laparoscopic technique has advantage of less post operative discomfort and fewer complication no incision scar and shorter recovery of time about the cause of reversal it were found that loss of the children was the main cause, they found that recanalisation at the site of sterilisation is one of the causes of failure the under lying cause could be a pre existing proliferative disease of tube and might cause tubal pregnancy (7) the the good result found in age 20-40year women age. in all studies 2the short sterilization reanastmosis interval high result and with length of tube 8cm and above also good out come.

References

1. Edwardrd.,white450, Cincinnati , ohio

2. phill.pkalloand michalcooper

Department of gynae and obstet, university of new smith wales

Department of obstet and gynae university of sydeny .austerlia

3. cristiani smiranda,anto no r. carrajal and paula venditti

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5. jain m, jain p,GARG R ,TRIAPTHI,FM

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6. NIKELE NDKGH

7. DENISE JJAMIESON,MD ,MPH SUSAN D,HILLIS,PHD

8. TSIND,MAHMOOD D Laparoscopic AND HYSSTROSCOPIC APPROACH FOR TUBAL ANASTMOSIS LAPROENDO SCSURG.1993,3:63-6

9. LEECL,LAIYM,HAUNG HY,SOONG YK LAPROSCOIC RESCU AFTER TUBAL ANASTMOSIS FAILURE HUM REPROD 1995 JULY .10(7)
10. KRYSTENE, BOLE, MD, STAFF PHYSICIAN
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12. BADWAYS, GILMANT, MROZIEWICZ E

13. NIKOS F VLAHOS, BRANDON J, BANKOWSKI, JR, REMY A, KING, DIANNEA, SHILLER
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20. BAD WAYS, GILMANT, MROZIEWICZ E

21. DANILL JF, MC TARISH G, COMBINED LAPAROSCOPY AND MINILAPROTOMY IN OUTPATIENT REVERSAL OF TUBAL STERILISATION

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