Sterilization (Tubal Ligation)

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Abstract

In my practice of 19 years in gynacology and obstetrics in Hilla General Hospital and Babylon Hospital for Maternity and Children. I have done nearly 800 cases of tubal ligation, but it was difficult for me to involve all these cases and I selected randomly 100 patients (those who come for regular visits or seeking advice for many reasons). The very strong indication for tubal ligation were repeated caesarean section.

I noticed that most of the patients were happy and satisfied with the operation although about 70% of them had side-effects and complications which weresimple and treated accordingly.

The main complaint was menstural disorder mainly menorrhagia.

Only 5 cases ended by hysterectomy few years later.

Few couples seek for reversal of operation because of change of their situation (death of one more of the children or death of the husband).

This operation found to be safe and effective with low rate of mortality and morbidity.

Failure rate although is minimum, but it is reported in 2 cases in our research both of them done at time of caesarean section by Madlener technique.

Introduction

Sterilization

When they consider their family complete more couples are now choosing sterilization of one partner as their contraception method. In India and elswhere it is the major brith control method employed (Southam 1973). Baird in 1966 reported from berdeen that 7.2% of women over 30 years of age and a quarter of women with five or more had been sterilized.

These groups still from the majority of cases (Borland 1973) but recent series quote an mcident of tubal ligation between 20-25% of live birth (Edwars & Hakanson 1973). Pueperal sterilization accounted for 80% of 902 operation reported by (meclin *et al* - 1976) only 1.9% been performed at pregnancy termi-

nation. This contrasts with a Danish series where 85% of the operation were at the time of operation (Hoffmeyer *et al* 1967).

In western countries more emphasis is placed on e of several contraceptive methods available rather than as the last resort when other methods have failed.

More requests are now received from patients in higher socio-economic groups and from women from lower age and parity. In their mid thirtieth, many couples who have relied on the pill or intr uterine device wish to consider sterilization.

As a consequence more centers are performing sterilization, many gynaecologists provide a vasectomy service and new tehniques involving short stay in patient or out patient surgery have further encouraged demand.

Material and Methods

In my practice (my experience of 19 years from 1977 to 1996) in gynaecology and obestetrics in Hilla Genral Hospital and Babylon Hospital for Maternity and Children. I have done nearly 800 cases of abdominal and vaginal sterilization. but because of difficulty in collecting the whole data on them. I randomly selected 100 cases for the purpose of thir study. Tne age group varied from 23 up to 45 years from various types of socio-economicstate and different occupations.

62 of the paitents were operated on by the researcher while 38 were referred toher by other doctors.

All the patients were admitted to the hospital and both partners agreed to do the operation (see advice and discussion before operation).

Indications

1- There are no absolute indications.

2- Very strong ones are repeated caesarean section.

3- Chronic disease of wife.

4- where future pregnancies would carry an unacceptably high risk of fetal deformity or death.

5- Physical risk to the mother pregnancy and child birth.

6- Probable effect on her well-being and on that of her husband and existing family.

7- A history of psychiatric illness.

8- It was formerly accepted that the women should be thirty or more years old and have two living children (in our society at least two living males), but execptions certinaly occur.

9- Sterilization in nulligravida is to be approached with extreme caution.

Advice and Discussion Before Operation

1- Operation should be preceded by discussion with both partners.

2- Emotional, social and economic aspects shouldbe discussed.

3- The probable stability of the union is to be assessed as well as the efficency with which other suitable contraceptive methods would be used.

4- Discussion topics must include male and female sterilization and the place of the pill or intra uterine device as an alternative.

5- The essentially irreversable nature of sterilization should be stressed but it is only fair that the very low possibly of failure should be mentioned. In Britain itis not necessary for reference to this possibility to appear in the consent form (cf Woodruff and Pauertien 1969). The patient and spouse should then give their written, informed witness consent.

Route, Timing and Type of Operation

In General

Sterilization operation may be performed at Laparotomy, mini Laparotomy, Laparoscopy, colpotomy, vaginal hysterectomy or hysteroscopy. The rout and timing may result from the opportunity provided at caesarean section, pregnancy tremination or repair of prolapse. With fibroids, prolapse, chronic plevic sepsis or menorrhagia hysterectomy may be appropriate. Early puerperal tubal ligation may be simply and satisfactorily performed under local anaesthesia or epidural block used for delivery within 24 hours of the birth.

Others adovocates operating on the fourth or fifth day but it has been argued that this would increase the risk of thrombosis and embolism, a fear not confirmed by (Turner & hooper 1971).

On the fifth day there is often histological evidence of acute tubal inflammation but bacterilogical evidence if the infection has been found in less than half (Spor *et al* 1970; Mustato & Pinkerton 1970) and morbidity dose not increase when the fourth or fifth day is chosen (Phatak 1972). Each case must however, be considered separatly and sterilization of 6 weeks should be appropriate for some.

The death rate from tubal sterilization in several series of over 5,000 cases (Nil & Pauertien) suggests a failure of less than 0.02% with a morbidity from infection and haemorrhage of 5%.

Hysterectomy espcially those associated with pregnancy termination or caesarean section will increase morbidity and mortality. Some times the surgeon condsirs the risk be justified.

In Our Research

The majority were done through:

1- Laparotomy at the time casarean section.

2- Efective mini laparotomy during puerperium 5 cases.

3-The use os small cusco's speculum inserted into the peritoneal cavity through a mini laparotomy 6 cases

4- Colpotomy during operation of prolapse 2 cases

Thechinques of Sterilization

Tubal Sugery

The tubes may be approached by laparotomy, mini laparotomy, laparoscopy, colpotomy or hysteroscopy. The tendency towards smaller abdominal mcisions to minimize time spent in healing has been assisted by the use of proctoscope inserted into the peritoneal cavity (Stevenson 1971) by using new instruments of mgeniuos design and by using an intra uterine canual to manipulate the uterus (Uchida 1973). Tubal ligation or ligation with resection may be performed.

Tubes may be crushed with or without ligation the stumps following ligation (or the fimbrial end of the intact tube as a temporary measure), can be buried extraperitoneally. The isthmic portion of the tubes and uterine cormua maybe excised together or the whole of both tubes can be excised.

The oviducts may be coaglated by diathermy or by bipolar electrode and can be divided following cagulation. Their abdominal ostia may be plugged and the plugs retained by spring clips.

The Techniques of Sterilization

Madlener Technique
Pomeroy Technique
Irvine Techniqque

Follow up

First visit we ask the patient to come one week after the operation, then 6 weeks or if any complication arises. Regular visits every 3-6 months for the first year every 6 months for the subsequent years.

Follow up is often difficult becase of the small number who can be contacted, but in our research those 100 patients were attended to the hospital or private clinic because of various sid-effects and complications.

Side Effects and Complications

Immediate

	Number	Percentage
1- Haematoma after caesarean section	1	1%
2- Unilateral or bilateral pain at site of ligation in the first few days or months after the operation	15	15%

Late

A Related to Menstruation		Number	Percentage
1	Menorrhagia (heavy period)	30	30%
2	Irregular uterine bleeding	4	4%
3	Oligonorrhoea	1	1%
4	Premature menopausal syndrom	1	1%
5	Post menopausal bleeding	1	1%

B	Related to plevis	Number	Percentage
1	Severe pain	18	18%
2	Dysmenorrhoea	2	2%
3	Dysparunia	5	5%
4	Pelvic mflammatory disease	5	5%
5	Backache	2	2%
6	Prolapse of Uterus	5	5%
7	Retroverted uterus	1	1%

Remote

		Number	Percentage
1	Psychological	6	6%
2	Husband married again	1	1%
3	Patient want a child	9	9%
4	Reversal of ligation	3	3%
5	Abdominal distension (See Conclusion	1	1%
6	Obsity	1	1%
7	Irritable colon	1	1%

Conclusion

Sterilization is a procedure which destroys the procerative function and the effect is usually permenant.

Both husband and wife must signify in writing that they agree to the performance of the operation and the method by which it is to be done. Resection of the tube is carried out abdominally and particularly easy to perform four to seven days after delivery when the uterus is an abdominal organ and the tubes readyily accessable.

Tubal resection can also be carried out vaginaly, either during the course of another operation or as the rout of choice.

The tubes are reached through the pouch of dauglous or through the uterovesical pouch.

Vaginal tubal ligation causes the patient little pain and upset and is preferable to an abdominal operation in all cases in which the organ are reasonably accessible.

Vaginal tubal ligation is contraindicated, however, during the three months following pregnancy at which time the uterus remain large and the tubes high. Moreover, the tissues are very vascular, an alternative method is the use of laparscope which permits diathermy of the isthmic portions of the tubes under vision. This is a minor operation causing minimal discomfort, and necessitates the patient remaining in hospital for only two or three days.

Sterilization operation in the female involve the usual risks of an invasion of the peritoneal cavity, the mortality rate being 0.13% in phisically healthy women.

Operation on the fallopian tube generally have no permanent physical ill effects and this should be emphasized to the patient and her husband. These procedures should not disturb menstruation and ought not to influence sexual feeling and coitns.

In some cases they increase libido because both partners are relieved of the dread of pregnancy.

Previously depressed patient, those with poor sexual adjustment and whose marriage is unsound from the group in whom series psychatric sequles are most like.

More operations on younger women with smaller fanilies have resultes in more requests for reversal operations when family personal circumstances change.

Though sterilizations should be presented as a permanent procedure the possibility of later request for reversal should favour sterilizing methods which cause least tubal damage.

Result

Tubal sterilization is a safe procedure, easy but not free from complication. It carries very low porcentage of morbidity.

There was not reported cases of mortality from tubal ligation itself.

In our research the total number of patients without complication was 30 cases (30%), while those with complications was 70 cases (70%), but most of these complications were not so serious and treated accordingly.

Menorrhagia was common in 30 patients, but only 5 patients ended by hysterectomy (5%). In subsequent examination of the patients studied, uterine fibroids were discovered in 5 cases (5%), ovarian cyst in cases (2%), and sinus of umblicus in 1 case (1%).

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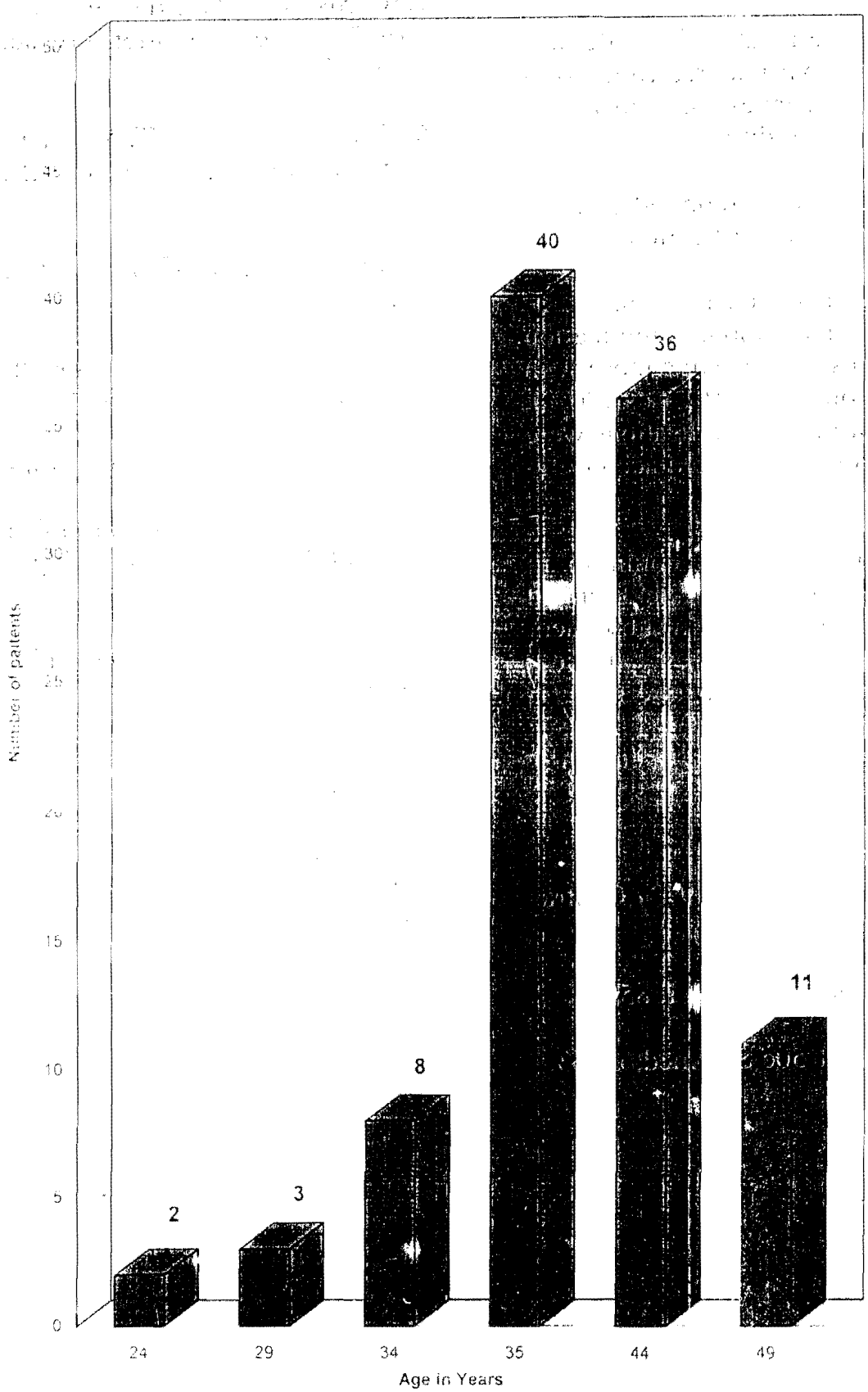
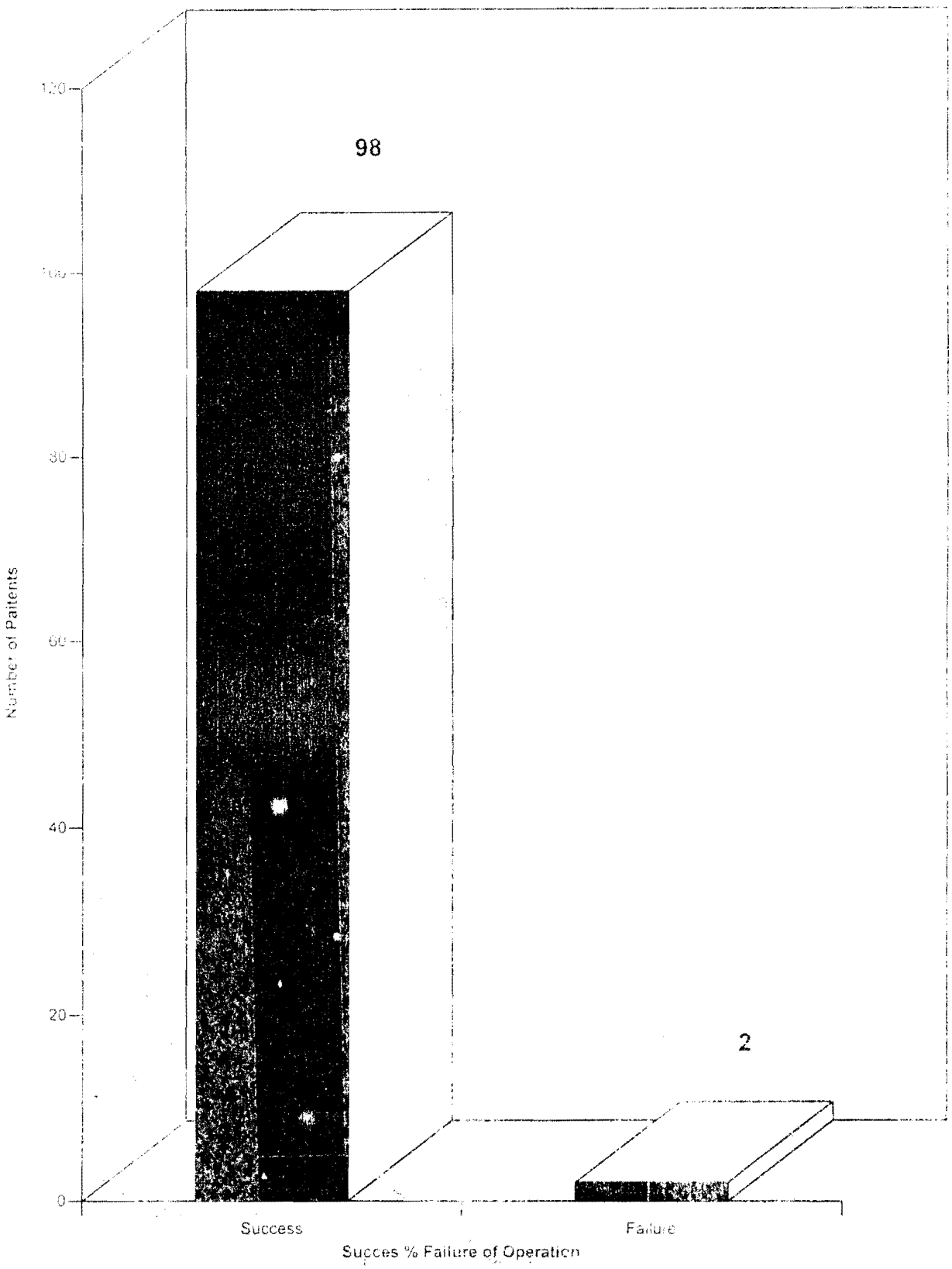

Number of patients
0
5
10
15
40
2
3
8
40
36
11
24
29
34
35
44
49
Age in Years


Number of Patients
0
10
20
30
40
50
60
70
80
15
55
30
Major Comp.
Minor Comp.
W/O Comp.
With or Without Complications


120
100
80
60
40
20
0
Number of Patients
98
2
Success
Failure
Succes % Failure of Operation

عقد الانابيب الرحمية

ليلى عبد الامير
كلية الطب / جامعة بابل

الخلاصة

من خلال تجربتي الطويلة خلال التسعة عشر السنة الماضية في حقل اختصاصي في مستشفى الحلة الجمهوري ومستشفى بابل للولادة والاطفال قمت بأجراء ما يقارب ٨٠٠ حالة عقد الانابيب الرحميه. ولكن من الصعوبة بمكان جمع كافة المعلومات عن جميع الحالات المذكورة ، لذلك قمت بأختيار ١٠٠ حالة من السيدات اللواتي راجعن العيادة الخاصة او المستشفى لغرض المتابعة الدورية او عند حدوث مشاكل جانبية .

ولقد كان من اهم دواعي اجراء عملية عقد الانابيب الرحمية هو العمليات القيصرية المتكررة (من ٣ الى ٧ مرات) وقد لاحظت ان اغلب النساء يتمتعن بصحة جيدة ومقتنعات بالعملية عدا بعض المشاكل الجانبية (حوالي ٧٠٪) والتي كانت بسيطة وعولجت آنياً .

وكانت من ابرز هذه المشاكل هي اضطراب الطمث وخاصة زيادة مدة وكمية الدورة الشهرية .

هناك خمس حالات فقط انتهت بأستئصال الرحم بعدة عدة سنين .

هناك عدد قليل من الازواج طلبوا ابطال عملية عقد الانابيب بسبب التغيرات الحاصلة في حالتهم مثل (موت واحد او أكثر من الاطفال او موت الزوج) .

تعتبر هذه العملية مضمونة وفعالة مع نسبة قليلة جداً من المضاعفات الخطيرة والمؤدية الى الوفاة .

نسبة الفشل بالرغم من انها قليلة ولكنها سُجلت في حالتين في بحثنا هذا ولقد اجريت عملية عقد الانابيب الرحمية في كلتا الحالتين اثناء العملية القيصرية بطريقة مادلينر.