Postpartum sterilization by mini-incision at Paarl, CP

A multicentre international comparison

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Summary

Postpartum sterilization at Paarl Hospital, CP, is compared with the situation obtaining in Thailand, India, Cuba, Chile, the Philippines, Australia and Singapore. This international study depoliticizes the issue and emphasizes that voluntary sterilization is a basic service which should be available everywhere. A transumbilical minilaparotomy is a fast and safe procedure, which should be carried out within hours of delivery — even on Saturdays and Sundays. Caesarean section when sterilization is the only indication is completely unjustified.

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Sterilization after childbirth is an established component of many family planning programmes today and it has become an essential part of primary health care. Many developing countries rely on postpartum sterilization for generating acceptance of sterilization.[1] In Africa both Nigeria and Sierra Leone have recently initiated such sterilization services.[2] The advantages of a postpartum sterilization performed within 48 hours of delivery are those of convenience to both the mother and her family and also to the hospital service because of optimum bed utilization. To reduce potentially harmful effects of the surgical procedure a transumbilical minilaparotomy should be performed. This method was first proposed by Mark and Webb[3] in 1968 and has since been adopted in many centres.

Transumbilical minilaparotomy for sterilization has been provided at Paarl Hospital since 1971 and many house surgeons and registrars have been instructed in the method. The advantages are: (*i*) rapid discharge of the patient (often within 24 hours); (*ii*) excellent bed utilization; and (*iii*) virtual freedom from complications.

Most patients are left with no scar since the umbilicus is completely retracted. Only 1 maternal death was recorded out of 5 000 cases of postpartum sterilization performed at Paarl Hospital between 1968 and October 1984.[4]

The Paarl experience is specifically compared with work done at seven other centres and five parameters are reported: (*i*) the average age; (*ii*) parity; and (*iii*) weight of the patients; (*iv*) the different types of anaesthesia; and (*v*) the duration of the operation.

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Patients and methods

At Paarl Hospital great emphasis is put on adequate counselling of every patient. As part of their comprehensive antenatal care all booked patients are informed about sterilization and the various methods available are explained. Several audiovisual programmes are presented in an attempt to cater specifically for the particular background of each patient: an *isiXhosa* programme for Xhosa women, a suitable film for farm labourers, and a vasectomy programme for couples considering this method of permanent surgical contraception. Patients attend in groups and two motivators lead them in discussion.

The goal with each patient is to obtain total informed consent and thus a consent form is signed and witnessed, preferably months before the operation. Counselling at the time of delivery is avoided except with grand multiparous women. The right to be sterilized at any age if a woman has 2 healthy children is emphasized.

The anaesthetic used is either an epidural one performed by the obstetrician or a general anaesthetic. Theatre facilities are available at Paarl Hospital every day of the week including Saturdays, Sundays and public holidays. The surgical procedure is simple and streamlined: at present a semilunar transumbilical incision of ± 3 cm exposes the peritoneal cavity: the incision is pulled to the side of the postpartum uterus by means of a Langeback's retractor and a Filshie-silicon-vitallium clip is applied 2 cm from the uterus on each fallopian tube after proper recognition of the fimbriae on each side. Ovaries are identified and examined. Closure of the wound is always by means of a single packet of Vicryl using a purse-string suture to the peritoneum, continuing into a figure-of-8 suture to the rectus sheath and ending with a subcuticular skin suture. The last knot is buried under the skin.

A total of 177 consecutive patients who had postpartum sterilizations at Paarl Hospital from 1 October 1984 to 31 March 1985, is analysed in Tables I and II.

Multicentre comparison

The results at Paarl Hospital have been compared with those in centres in Bangkok, Chandigarh, Havana, Manila, Santiago de Chile, Singapore and Sydney. The data are set out in Tables I and II.

Discussion

Postpartum sterilization is a procedure both available and practised throughout the world today. This international aspect should be emphasized and the data should irrefutably depoliticize the subject of voluntary sterilization, which should be freely available to any couple in the RSA who desire permanent surgical contraception. The Paarl example should certainly be adopted by the rest of South Africa.

Postpartum sterilization fulfils two main purposes: (*i*) it provides permanent surgical contraception for the couple who have completed their family; and (*ii*) it guarantees that good obstetric care is given to both mother and child in a hospital.

The Paarl Hospital experience compares most favourably with that in seven other centres in different countries. Mini-

TABLE I. POPULATION CHARACTERISTICS

Centre	No. of subjects	Mean age (yrs)	Mean parity	Mean weight (kg)
Bangkok, Thailand	**200**	**28,61**	**3,83**	**51,44**
Chandigarh, India	**139**	**28,9**	**3,83**	**51,7**
Havana, Cuba	**199**	**32,03**	**3,47**	**61,52**
Paarl	**177**	**30,70**	**4,05**	**67,86**
Manila, P.I.	**200**	**31,17**	**5,21**	**50,31**
Santiago de Chile	**23**	**31,96**	**4,56**	**55,6**
Sydney, Australia	**65**	**31,09**	**3,58**	**61,97**
Singapore	**200**	**29,33**	**3,69**	**54,54**

TABLE II. MODE OF ANAESTHESIA AND DURATION OF PROCEDURE

Centre	Anaesthesia	No of subjects	Mean duration of operation (min)
Bangkok	**Local**	**200**	**12,13**
Chandigarh	**General**	**139**	**17,88**
Havana	**Spinal**	**199**	**11,93**
Manila	**Local**	**200**	**10,25**
Paarl	**General**	**147**	**14,01**
	Epidural	**30**	
Santiago	**Spinal**	**23**	**10,26**
Singapore	**Local**	**194**	**16,71**
	General	**6**	
Sydney	**Local**	**6**	**22,14**
	General	**59**	
Total		**1 203**	

laparotomy postpartum sterilization is safe and simple and should be available throughout the RSA.

Although the average number of children a woman has at the time of sterilization is slightly lower in Thailand, India, Cuba, Australia and Singapore than in Paarl, the age at the time of the sterilization request is remarkably consistent at about 30 years. However, Paarl patients weigh significantly more. This probably accounts for the difficulty we have experienced when attempting minilaparotomy under local anaesthesia.

There is no excuse for not providing an around-the-clock service every day of the year for this essential operation.

Postpartum sterilization in the RSA is a vital part of primary health care and, if the Paarl incidence of $> 20\%$ of all patients delivered is projected onto the figures for the rest of the RSA, the yearly demand for postpartum sterilization would total 200 000.[5] Unfortunately, despite repeated pleas, most hospitals do not as yet offer a 24-hour service. There is no excuse for a major and mutilating laparotomy when a simple sterilization operation can easily be performed. Without doubt caesarean section for the sole purpose of sterilization is contraindicated and this practice should be abandoned.

Minilaparotomy postpartum sterilization means optimum bed utilization and a great saving to both patient and hospital. The only disagreement might concern the mode of anaesthesia adopted.

The use of local anaesthesia for postpartum sterilization seems to be contraindicated in the RSA where there is a high incidence of pelvic infection and obesity, particularly among black patients. General anaesthesia requires the presence of another qualified and experienced doctor. I feel that the art of epidural block should be widely taught at medical schools (with proper emphasis on quality control and safety);[6] then one doctor could perform both the epidural block and the postpartum sterilization, thus saving time and expense.

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