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Hysterectomy in the rural tropics

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SUMMARY

A retrospective study of hysterectomy at a rural hospital in Ghana revealed a high incidence of emergency cases. Uterine fibroids were the commonest indication for elective hysterectomy, followed by surgery for suspected cervical carcinoma. Most emergency hysterectomies were performed because of uterine rupture. The difficulties of managing these problems against the background of the diagnostic and therapeutic facilities available are discussed.

INTRODUCTION

Gynaecological disease and pregnancy-related disorders are common in the tropics, and hysterectomy is often indicated, although the frequency with which it is performed varies considerably from place to place. This study was undertaken to document the indications for hysterectomy in a rural district hospital in Africa, and to examine the results of surgery with a view to identifying ways of improving patient management.

PATIENTS AND METHODS

The hospital records of patients undergoing hysterectomy at Holy Family Hospital, Berekum between January 1984 and August 1989 were examined. This 162-bed hospital in the Brong Ahafo region of Ghana serves a largely rural population of 188 392 (1988 census). Facilities are basic but generally good by African standards,¹ but there is no blood bank. Compatible relatives act as donors, but considerable delays are common.

Medical staff normally numbered between three and five doctors during the study period. Although most had a period of formal training in obstetrics and gynaecology, none were specialists. Specimens for pathological examination are sent to Europe (often as a small sample only), but several months may elapse before reports are available, and clinical decisions are often made in the meanwhile.

RESULTS

A total of 178 hysterectomies were performed of which 27 (15 pc) were emergencies. Obstetrical and gynaecological conditions account for over 50 pc of emergency and about 20 pc of major elective surgical cases at Berekum. Clinical details of the women who had elective and emergency hysterectomies are shown in Table I and II.

There were five post-operative deaths, giving an overall mortality rate of 2.8 pc (1.3 pc in the elective group and 11 pc in the emergency group).

Of the 27 patients who had hysterectomy for suspected cervical carcinoma, a pathological report was available in only 13 cases, confirming the diagnosis in seven but not in the other six. Of the seven pathologically confirmed cases, five developed clinical recurrence of tumour after a mean follow up of 11 months. Three clinical recurrences occurred among the 14 patients without histology. Of those with suspected endometrial carcinoma, the diagnosis was confirmed in one of three available reports. All emergency operations were performed under general anaesthesia, but 83 pc of elective cases had spinal anaesthesia.

DISCUSSION

It is well recognised that fibroids are common in African women,² and this is the commonest

Table I: Hysterectomy at Berekum— Elective Cases

Indication	No. of patients	Mean age in years (range)	Mean pre-op Hb in gm (range)	No. of patients transfused peri-op	Deaths
Uterine fibroids	77	39 (23-58)	10,9 (5,1-14,8)	15	1
Suspected cervical carcinoma	27	44 (20-80)	11,6 (6,8-16,2)	5	0
Uterine prolapse	20	50 (26-80)	12,0 (7,7-15,0)	0	1
Pelvic inflammatory disease	11*	39 (20-80)	11,3 (6,4-13,2)	4	0
Suspended endometrial carcinoma	6	45 (36-65)	8,2 (5,1-13,2)	5	0
Other	10	36 (25-45)	11,2 (4,6-15,8)	0	0
Total	151	41 (20-80)	10,8 (4,6-16,2)	32 (21 pc)	2

* Nine of these 11 patients had co-existing fibroids.

Table II: Hysterectomy in Berekum— emergency cases

Indication	No. of Patients	Mean age in Years (range)	Mean pre-op Hb in gm (range)	No. of patients transfused peri-op	Deaths
Ruptured uterus	15	31 (18-41)	10,4* (6,4-16,2)	12	1
Haemorrhage	6**	32 (32-40)	7,8 (5,4-11,6)	1	
Extrauterine pregnancy	3	24 (19-28)	8,5 (7,6-10,3)	1	0
Sepsis	3	32 (18-40)	8,1 (6,7-9,6)	3	1
Total	27	31 (18-41)	9,1 (5,4-16,2)	22 (81 pc)	3

*Data unavailable in six cases

**Postpartum in five patients

indication for elective hysterectomy in our hospital. The co-existence of fibroids and pelvic inflammatory disease in nine of our patients probably reflects the high prevalence of both disorders, rather than an association between the two.

The management of cervical carcinoma in Berekum is unsatisfactory. Although the incidence is high, diagnostic facilities are almost totally lacking. In these circumstances, doctors are faced with the dilemma of whether to perform palliative surgery for suspected cases, or do nothing. There are no radiotherapy facilities in Ghana.

The results of this study suggests that hysterectomy may not be the best option in these circumstances. Nevertheless, an aggressive surgical policy may cure some patients with early disease, at the cost of performing a number of unnecessary hysterectomies. However, it is clear that priority must be given to the establishment of diagnostic facilities for this condition.

One death in the elective group was due to sepsis and this was in a patient who had not been given prophylactic antibiotics. Only 25 pc of patients undergoing elective hysterectomy were given prophylactic antibiotics and a policy of routine prophylactic antibiotics might be more appropriate, especially in view of the prevalence of pelvic inflammatory disease.

It was, however, difficult to precisely define the incidence of post-operative sepsis in this retrospective study, particularly in the absence of facilities for culture and sensitivity studies.

The ratio of emergency to elective hysterectomy is high in this series and the major indications similar to that in other reports.³ All deaths in the emergency group occurred within 24 hours of surgery. The 11 pc mortality is understandable given the poor condition of many of these patients at presentation and the limitations of the treatment facilities available to them.

Anaemia was common and over 20 pc of patients undergoing elective surgery and more than 80 pc of those operated on as emergencies, required peri-operative blood transfusion. Four of the five deaths occurred in patients who required multiple transfusions for severe anaemia. Although the incidence of AIDS in Ghana is not as high as elsewhere in Africa, the risk of disease transmission cannot be ignored.⁴

On the other hand, the absence of a blood bank poses a threat to a sizeable number of patients, particularly if they present with active bleeding 'out of hours'. In these circumstances, the decision as to when to intervene surgically may be very difficult.

Two priority areas are identified from this study: (1) There is an urgent need for a clear programme designed to set up diagnostic facilities for cervical cancer; (2) Continued efforts must be made to reduce the incidence of ruptured uterus.

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