

MANUAL VACUUM ASPIRATION IN THE MANAGEMENT OF POST ABORTAL TETANUS

C. I. Akani, C. T. John

Department of Obstetrics and Gynaecology, University of Port Harcourt, Port Harcourt, Nigeria.

SUMMARY

Eleven (11) patients with tetanus were managed by uterine evacuation using the manual vacuum aspiration at the University of Port Harcourt Teaching Hospital, Nigeria over a period of ten years.

Eight (8) of the patients had uterine evacuation while in coma, while three (3) were conscious but had spasm and features of tetanus. The age range was between (19 – 37) years; the uterine evacuation was performed on the patient's bed after adequate sedation to present spasms. The clinical improvement was remarkable.

KEYWORDS: *Abortal tetanus, uterine evacuation, MVA.*

INTRODUCTION

Maternal and neonatal tetanus is still a major public health problem worldwide and it is more so in many countries in Africa^{1,2}. Maternal tetanus result, from contamination from tetanus spores through puncture wounds, often linked with unsafe abortion practices and post partum infection^{1,3}. Tetanus still causes 5% maternal deaths worldwide³. Thorough debridement and toileting are critical to reducing the anaerobic conditions in which the bacteria thrive, so prompt evacuation of the uterus in post abortion infection is essential in the management of this condition.

Manual vacuum aspiration is a useful method for uterine evacuation with insignificant or reduced morbidity and mortality. The simplicity and rapidity of the technique marks an unprecedented advantage in tropical gynaecology. Prior to the University of Port Harcourt Teaching Hospital, Obstetrics and Gynaecology department policy on use of manual vacuum aspiration, evacuation of the uterus for incomplete abortion was by sharp endometrial curettage. Manual vacuum aspiration has been successfully used in the management of incomplete first trimester abortion over the last eleven years.

Difficulty encountered in the case of patients with incomplete septic abortions complicated by tetanus include inability to transfer or mobilize patients to theater for procedures while secondary incessant spasms induced by instrumentations compounds attempts at evacuation of the uterus.

Manual vacuum aspiration enhances a non excitatory response in the patients and allows a thorough evacuation of the uterus to be achieved in tetanus patients.

Evacuation of the uterus as a septic focus changes the poor outcome that is usually associated with post abortal tetanus.

MATERIALS AND METHODS

The medical records of eleven (11) patients who were treated for post abortal tetanus using manual vacuum aspiration over 10 years (Jan. 1989 – Dec. 1998) were retrieved and analysed.

The evacuation was done on the patients bed after adequate sedation to prevent provoking spasms, the knees were flexed, with patient in a lithotomy position and knees supported by an assistant. Cusco's vaginal speculum was used to exposed the cervix. Using appropriate canula size, the uterine cavity was gently evacuated maintaining as strict asepsis as possible.

RESULTS

Table 1 shows the age and parity distribution of the patients as well as the outcome of treatment.

Their age range was between (19 – 37) years. Eight (8) of the eleven patients had uterine evacuation while in coma whereas three (3) patients were conscious but had spasms with features of tetanus.

Table 1: Age Distribution (in years)

	10 – 20	21 – 30	31 – 40
Number	7	3	4
Percentage	27.2	36.4	36.4

Parity Distribution	P = 0	P/ - 4	P5>	Unknown
Number	7	3	0	1
Percentage	36.6	27.2	0	0.09

Outcome of Treatment	Number	%
Alive	10	90.9
Died	1	9.09

*Correspondence: Dr. C. I. Akani

DISCUSSION

Unsafe abortion is one of the five leading causes of maternal mortality worldwide and therefore a health problem of global concern. In Africa alone, an estimated 3.7 million unsafe abortions are performed annually and approximately 23,000 deaths result from these procedures⁶.

Septic abortion has remained a leading cause of maternal mortality in Africa. The polymicrobial infection mirrors the endogenous vaginal flora such as *E. Coli* and other aerobic enteric, gram negative rods and microaerophilic bacteria. Patients with septic abortion present with fever, abdominal tenderness and uterine pain. In extreme cases, the local infection may progress to septicaemia and septic shock^{4,7}.

In this review, a significant number of patients were below age of 30 years and majority were nulliparous. In six (6) of the patients there was a reliable history and evidence of previous dilatation and curettage to evacuate the uterus prior to abortal complication⁵. The role of infection from clandestine abortion tetanus to enhance therapeutic efficacy of antibiotic treatment and clinical recovery. Evacuation by curettage had posed logistic problems of patient's transfer to the theatre and difficulties in achieving a convenient position for the procedure. Since this clinical state is associated with spasms in the slightest provocative stimulus we noted that generous sedation enhanced smooth conduct of the procedure. The efficiency of vacuum aspiration was demonstrated with marked improvement and clinical recovery of patients following evacuation of the uterus. Number of cases of abortal tetanus is surprisingly low considering high prevalence of illegal abortion in our environment. (Illegal abortions are usually not something of public advertisement). The only patient who died in the series, due to septicaemia, denied any history of termination of pregnancy, but died 36 hours after evacuation of septic uterine products. Satisfactory treatment outcome (90.9%) spells a marked clinical improvement, reduced hospital stay, hospital bill and agony to the patients. The recorded recovery made in 10 cures (90.9%) of our series was of considerable clinical importance.

Although the interval between procedure of abortion and endotoxaemia may vary, there may be need for caution to make early diagnosis^{6,7,8}. This paper presents an analysis of eleven cases treatment in this department for over a period of ten years

from 1989 to 1999. More frequent use of this simple and invaluable aid is emphasized for urban and rural practice. This is another strategy in the reduction of maternal mortal from unsafe abortion. Appropriate health education campaign to improve awareness about the usefulness of this procedure may prove beneficial. The use of manual vacuum aspiration as effective tool for the management of abortion complicated by tetanus has proven to be a useful means of reduction of maternal mortality. It is important therefore for this technique to be widely used in third world setting such as ours. It is cheap, simple and the skill is easy to acquire and the result very effective.

REFERENCE

1. Maternal and Neonatal Tetanus Elimination Technical Review Meeting Manual, 13th December 1999; 2-5.
2. **Campbell J.** Tetanus: a major killer still at large: Afri. Health Med. Digest May 2000; 22 (4), 8-10.
3. **Crook Barbara.** Home delivery kits: a key to preventing maternal and neonatal tetanus in Africa. Afri. Health Inc. May 2002; 22(4), 4-14.
4. **James R Scott.** Early pregnancy loss; Danforth's Obstetrics and Gynaecology pp 175.
5. **Akande EO.** Reducing Morbidity and mortality form Unsafe abortion in Nigeria: Paper presented at Conference on Reducing Abortion Morbidity and Mortality - Abuja Nigeria July 2000.
6. **Stoddart JC.** Pseudo tetanus; Anaesthesia 1979; 34: 877-81.
7. **Renabir B et al.** Diagnosis of tetanus by simple test 1985. Br. Med. J. Vol. 290: 30.
8. **Rush BF, Sort AJ, Murphy TF.** Endotoxaemis and bacteri-aemia during haemorrhagic shock: The link between trauma and sepsis. Ann Surg 1988 207, 549-554.