Para Cervical local Anaesthesia in the district hospital setting: a prospective study

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Introduction

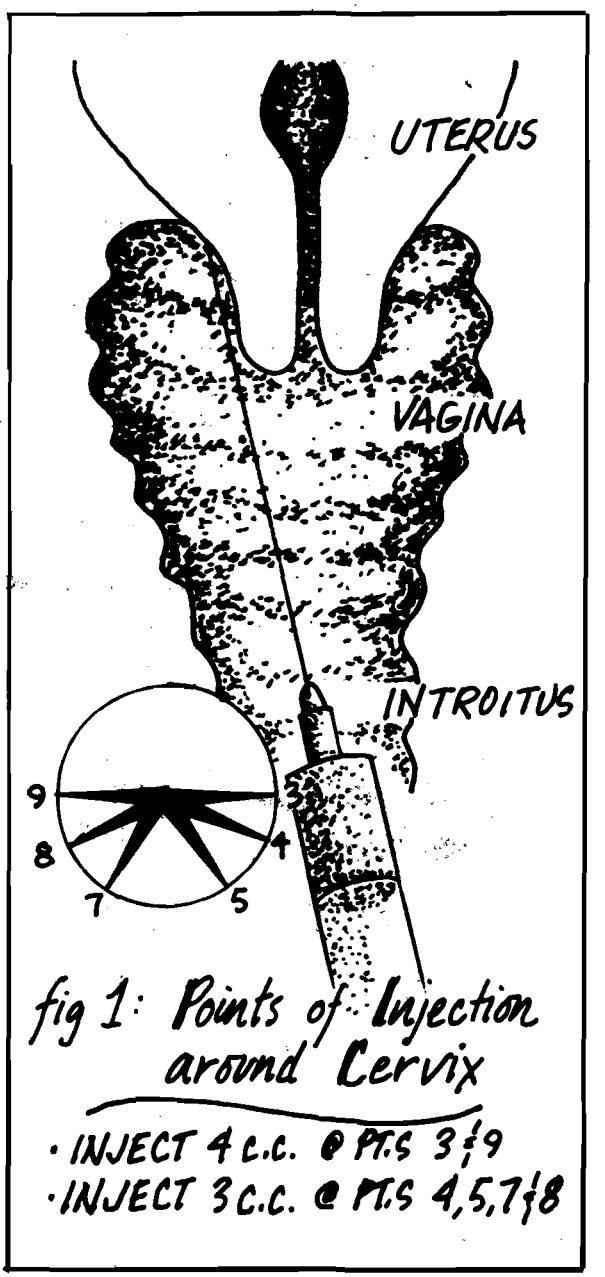
It is widely viewed amongst clinicians that local anaesthesia has long been considered more preferable over general anaesthesia whenever possible. The general anaesthetic risks of the complications of airway management, i.e. aspiration or obstruction, fatal cardiac arrhythmias, and hypotension, especially in the setting of pre-existing haemorrhage, are avoided when local anaesthesia is used. The results of this study highlight the efficacy of local paracervical block in both the in-patient and the out-patient settings of the district hospital in Malawi.

Materials and methods:

From 15.10.85 until 6.12.85, a 7½ week period at Mchinji District Hospital, patients requiring surgical procedures for the following conditions were involved in the study: incomplete abortion (11), septic abortion (4), retained placenta (7), infertility (1), and hypermenorrhea (1). Our intension was to include any patient requiring a uterine evacuation procedure.

After clinical evaluation patients were prepped and draped in the lithotomy position after receiving 50 mg of pethidine IV. A self-retaining speculum was placed in the vaginal cavity allowing visualization of the cervix. The cervix and posterior vaginal vault were prepped also. A total of 20cc of 1% Lignocaine was injected as a paracervical block in the 3,4,5,7,8 and 9 o'clock positions illustrated around the cervic in Figure 1, using approximately 3-4cc solution at each site.

The technique involved utilizes gentle traction of the cervix using a single tooth tenaculum on the anterior lip of the cervix, then injecting just under the submucosa at the point where the posterior vaginal mucosa comes anteriorly onto the lateral wall of the cervix. It is at this point that the paracervical nerve plexus is most successfully anaesthetized using this regional technique. Before injecting the anaesthetic, the syringe plunger was aspirated to ensure that the solution would not be injected directly into a blood vessel. The surgeon then waits- 30-60 seconds before proceeding with the evacuation of the contents of the uterine cavity.



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Results:

The results are summarized in Table I. During the study period, a total of 24 patients required a uterine evacuation procedure and all were included in the study. Of the 24, 21 (87.5%) underwent paracervical block with IV Pethidine (50mg) augementation achieving adequate anaesthesia. Three patients (12.5%) with retained placenta underwent general anaesthesia because of the clinical indications. Two of these had a very contracted pelvis, and it was felt that the pain that would be experienced from the vaginal introitus (which is not anaesthetized with paracervical block) would necessatate general anaesthesia. The other had general anaesthesia because the surgeon involved did not know the block technique.

Table I: Summary of Clinical Diagnoses and Anaesthesia used

	Paracervical Block	General Anaesthesia
Incomplete Abortion	10	1
Retained placenta	5	2
Septic Abortion	4	
Infertility	1*	nil
Hypermenorrhea	1*	nil
Totals	21(87.5%)	3(12.5%)

*Done as Out-Patients.

It should be noted that the senior clinical officer, one of the authors, was trained to use this technique of local anaesthesia during the study period and is now quite capable of performing the procedure alone.

Discussion:

The advantages to the patient of utilizing local anaesthesia in avoiding the complications of general anaesthesia have been noted. This particular procedure, paracervical block, is safe, easy to learn and teach. It also conserves on the numbers of staff required in the theatre, because the surgeon is also the anaesthetist. In a busy district hospital setting this is particularly helpful.

One additional advantage is that it can be used in the out-patient setting. Of the 24 patients in the study, two were from the out-patient department and were discharged home shortly after the procedure when the effects of the IV pethidine had subsided.

Finally, there were no complications. The obvious life-threatening complication of directly injecting the local anaesthetic into a blood vessel, which may result in fatal arrhythmias or convulsions, can be avoided by always aspirating on the syringe plunger before injecting the solution.

Acknowledgements:

The authors would like to thank Bill Boelm, PCV, for graciously donating his art work.

References:

Llewellyn – Jones (1982) *Fundamentals of Obstetrics and Gynaecology*, 3rd Ed., Vol. 1, P. 154.

Niswander (1980) *Manual of Obstetrics*, 1st ed., p. 313.