

# CLINICAL TRIAL OF LOWER ABDOMINAL FIELD BLOCK AND INTRAVENOUS KETALAR COMBINATION IN THE MANAGEMENT OF GRAVE OBSTETRICAL EMERGENCIES

By

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## SUMMARY

This clinical trial of lower abdominal field block and I/V Ketalar combination in the management of grave obstetrical emergencies was successfully tried in General Hospital, Maiduguri, Nigeria. Twenty cases with Obstetrical emergencies like, ruptured ectopic pregnancy, rupture uterus and APH were operated in a state of moderate to severe degree of shock. In all the cases operation was finished within one hour and the patients started improving as soon as the pathology was removed. Good resuscitation was done simultaneously. All the cases were closely watched during and after the operation. None of them died due to surgical or anaesthetic complication. This technique can be used in many hospitals of our country when we are faced with such a situation where patient is not able to withstand routine general anaesthesia.

## Introduction

Grave risk obstetrical emergencies were one of the common problems faced by the anaesthetist in General Hospital, Maiduguri, Nigeria. Such patients at times reach the hospital so late that their vital signs are difficult to record. Conservative management of such patients is not only time wasting but also not required and they have to undergo surgery at any cost. Here good anaesthetic management and a quick operation can save the life of the patient. Administration of complete general anaesthesia is not safe in these cases as the drugs affect adversely on various systems making the patient more serious, on the con-

trary these patients do not require much of the anaesthesia due to shock, so for such patients it was thought worthwhile to try lower abdominal field block. It renders the abdominal wall and its underlying parietal peritoneum insensitive. To block pain impulses from the viscera and posterolateral peritonium light general anaesthesia with I.V. Ketalar was given. Ketalar was chosen as it is a potent analgesic and stimulates the CVS which is advantageous to such patients.

## Material and Methods

This study was carried out in general hospital, Maiduguri, Nigeria in the year 1983-1984. This hospital caters patients of low social economic status from remote areas. Present study was done on

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20 patients admitted in a state of moderate to severe degree of shock resulting from obstetrical emergencies like ruptured ectopic gestation rupture uterus and APH. All the patients were thin built in the age group of 15-30 years. Active resuscitation was done with I.V. fluids, haemaccel and blood transfusion if available. Some patients with severe degree of shock were also given I.V. vasopressors/corticosteroids. A wide bore Ryle's tube was passed to empty the stomach. A sensitivity test for Xylocaine was done. B.P., Pulse and respiratory pattern was recorded preoperatively. In all the cases surgeon used lower abdominal midline or right paramedian incision.

**Technique:** Patient was kept in supine position and part is prepared, anaesthetist scrubbed and washed up. 0.5% Xylocaine (with adrenaline) 120 ml solution is made for 12 injections of 10 ml each. One 22 gauge spinal needle was used for giving injections. 12 injections were given in the following manner.

1. 10 ml is injected from above the umbilicus in sub-cutaneous plane by aspiration method till the full length of needle.

2. 2nd injection from the same prick but deep till the rectus muscle is pierced with resistance and another 10 ml injected.

3. 3rd injection by a prick midway between umbilicus and pubic symphysis and 10 ml injected in subcutaneous plane.

4. 4th injection is given in rectus muscle from the same prick.

5. 10 ml injected between ant.axillary line and umbilicus in subcutaneous plane (5th injection).

6. 10 ml is given by the same prick in muscle plane (internal, external oblique and transversus abdominis) (6th Injections).

7. 10 ml injected in the same line be-

low the 6th injection in subcutaneous plane (7th injection).

8. By the previous prick in muscle plane (8th injection).

9. 9th, 10th, 11th and 12th Injections on the opposite side corresponding to 5th, 6th, 7th and 8th injections.

After 12 injections are completed patient is draped and 0.5 mg/kg body wt. of I.V. Ketalar was injected. As soon as the patient goes to sleep surgeon starts the operation.

#### Observations

All the 20 cases were closely watched during and 24 hours after the operations. None of them died in post-operative phase of this study. Parameters of our study were, onset and duration of anaesthesia, degree of analgesia, muscle relaxation, any alteration in vital signs and postoperative recovery.

TABLE I  
Distribution of cases according to diagnosis and degree of shock

No. of cases	Diagnosis	Moderate degree shock	Severe degree shock
8	Ruptured Ectopic pregnancy	5	3
7	Rupture uterus	4	3
5	A.P.H.	0	5

Onset of Analgesia was from 0.5 to 1 minute after the infiltration of xylocaine and was uniform all over lower abdomen. In all the cases surgeon finished the operation in 45-60 minutes.

**Consciousness:** Patient was unconscious during the procedure and did not ex-

TABLE II  
Distribution of cases according to operative procedures and result

No. of cases	Diagnosis	Operation	Result
8	Ruptured Ectopic Pregnancy	Salpingectomy	Survived
4	Rupture Uterus	Subtotal hysterectomy	—do—
3	Rupture Uterus	Uterus repaired	—do—
5	A.P.H.	L.S.C.S.	—do—

TABLE III  
Showing duration of analgesia and muscular relaxation

No. of cases	Duration of Analgesia	Muscular Relaxation
7	30-40 minutes	Adequate
8	40-50 minutes	Adequate
5	56-60 minutes	Adequate

perience any pain. Ketalar was repeated in almost all the cases in the dose of 0.1 to 0.25 mg/kg body wt.

**Post-operative Recovery:** Vitals start coming to normal during the operation and post-operative recovery was excellent. Effect of ketalar weared off with the completion of operation and patient regained consciousness.

**Post-operative Emergence:** It is a known side effect of ketalar that patient feels hallucinations in post-operative phase. Our two patients had post-opera-

tive emergence, which was controlled by I.V. Diazepam.

**Discussion**

This clinical trial was found to be more suitable than G.A. for grave risk patients because it does not affect C.V.S. and respiratory system much as neither L.A. nor I.V. Ketalar affects these systems in clinical doses. It is an age old method for shocked patients. Atkinson, *et al* (1982) have also tried this method of abdominal field block and found it suitable. Schleich C. L. (1959) have stated that rectus sheath block is an excellent method of producing muscular relaxation when combined with light general anaesthesia. This technique is feasible in most of our hospitals as it does not require any special equipment.

**References**

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2. Schleich, C. L.: Schmerzläse Operation, Berlin, P. 240, 1899.