

Manual removal of placenta under hypoaesthesia

INTRODUCTION

THE TERM HYPOAESTHESIA or 'Atarlgesia' was introduced by Hayward-Butt in 1957. It is a technique of relieving pain and distress by the single intravenous injection of a mixture of drugs. The drugs used are a potent analgesic — pethidine, together with a tranquillising agent — a phenothiazine derivative. By this method, generalised analgesia and freedom from anxiety is produced, enabling a variety of simple operative procedures to be performed satisfactorily. The technique has wide application for obstetric procedures and O'Sullivan (1962) described its use for forceps deliveries. Crawford (1965) has highly recommended hypoaesthesia for the operation of manual removal of placenta. In this paper, the suitability of hypoaesthesia for manual removal of placenta is investigated.

MATERIALS AND METHODS

All cases of retained placenta admitted to the Maternity Unit of the General Hospital, Kuala Trengganu during 1969 were included in the study. There was no selection of cases whatsoever and all patients (irrespective of class of admission) were used. A total of 30 cases were obtained. This included eight cases who had their deliveries in hospital while the rest, 22, had their deliveries at home. Most of the latter cases were admitted to hospital a considerable time after the delivery of the baby and usually in a severe state of shock from blood loss. On admission, each case was examined and where necessary resuscitation undertaken first. Fifteen patients were found to be

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shocked and were resuscitated before the induction of hypoaesthesia.

Technique of inducing hypoaesthesia:

25 mgm of pethidine and 25 mgm of promazine (sparine) were diluted to a 10 ml solution, using distilled water. Each patient received 5 ml of this solution intravenously at a very slow rate of 1 ml per minute.

In no case was more than 5 ml used. Thus all patients received 12.5 mgm of pethidine and 12.5 mgm of sparine each. This dose was found satisfactory for all the women. The average weight of the patients was 7½ stones (105 lb.) and the dosage works out to approximately 1.7 mgm per stone body weight for each drug.

The blood pressure was checked immediately prior to the injection and at 5-minute intervals for 15 minutes following the injection.

In all patients, the operation of manual removal of placenta was performed after at least 15 minutes had elapsed since the time of injection. All unnecessary movement of the patient was avoided and the

operation was performed with the patient lying on her back with the legs drawn up. In no case was the lithotomy position used. The operation was performed not only by the author but also by the medical officers of this hospital as well.

In each case, the objective assessment of the patient as well as her subjective response was noted and she was asked specifically whether she felt any pain or discomfort during the procedure.

RESULTS

The results of the 30 cases are summarised in the table. It was noted that in all cases, in 15 minutes following the injection, the patient appeared to be in a light sleep but could be aroused, and could respond to commands. No respiratory depression was noted. There was no evidence of nausea or vomiting in any case. In 29 cases, the operative procedure was successfully carried out without any ill effects.

Case	Delivery	Del-MRP Internal	Condition Admission	Subjective Reaction P D N/V	Complication
1	Hospital	1 hr.	Satisf.	- - - -	nil
2	Home	2 hrs.	Shocked	- - - -	nil
3	Home	5 hrs.	Shocked	- - - -	Fall in BP 120/70-70/40
4	Home	2 hrs.	Shocked	- - - -	nil
5	Hospital	40 mins.	Satisf.	- - - -	nil
6	Home	4 hrs.	Shocked	- - - -	nil
7	Hospital	1½ hrs.	Shocked	- - - -	nil
8	Home	4 hrs.	Satisf.	- - - -	nil
9	Hospital	1 hr.	Shocked	- - - -	nil
10	Home	2 hrs.	Shocked	- - - -	nil
11	Home	5 hrs.	Satisf.	- - - -	nil
12	Home	20 hrs.	Satisf.	+ + -	Failure
13	Home	3 hrs.	Shocked	- - - -	Done under GA. Nil
14	Home	7 hrs.	Satisf.	- - - -	Nil
15	Home	8 hrs.	Satisf.	- - - -	100/70-70/50
16	Home	2 hrs.	Satisf.	- - - -	nil
17	Home	3 hrs.	Satisf.	- - - -	Fall in BP 120/80-80/60
18	Home	3½ hrs.	Shocked	- - - -	nil
19	Hospital	1½ hrs.	Satisf.	- - - -	nil
20	Home	2 hrs.	Shocked	- - - -	nil
21	Home	3 hrs.	Satisf.	- - - -	nil
22	Home	2½ hrs.	Satisf.	- - - -	nil
23	Hospital	½ hrs.	Satisf.	- - - -	nil
24	Home	6 hrs.	Shocked	- - - -	nil
25	Home	2 hrs.	Shocked	- - - -	nil
26	Home	5 hrs.	Shocked	- - - -	nil
27	Home	2 hrs.	Shocked	- - - -	nil
28	Home	2½ hrs.	Shocked	- - - -	nil
29	Hospital	1¾ hrs.	Shocked	- - - -	nil
30	Hospital	45 mins.	Satisf.	- - - -	nil

MRP = manual removal of placenta.

P = pain. D = discomfort: N/V = nausea/vomiting.

- = nil

Subjective response:

Twenty-nine out of 30 patients reported that the technique did not cause pain or discomfort. They did not find the procedure unpleasant and were satisfied with the analgesia and sedation offered by the method. A feature of hypoaesthesia was a large proportion who were found to have varying degrees of amnesia of the operative procedure.

One patient (Case 12) complained of pain and discomfort on attempting manual removal. This was a patient who had delivered the baby at home and only came to hospital 20 hours later with a retained placenta. On examination, the cervix had clamped down and could hardly admit two fingers. The attempted manual removal failed and the placenta was subsequently removed with difficulty under a general anaesthetic.

In three patients (Case numbers 3, 15, 17) a fall in blood pressure in the range 30-50 mm Hg. systolic was noted immediately following the injection. In each case, raising the foot of the bed and fluid replacement restored the blood pressure. No vaso-pressors were used.

DISCUSSION:

Manual removal of placenta is not only one of the commonest emergencies undertaken in obstetric practice, but also potentially the most dangerous as far as the hazard of maternal vomiting is concerned. A general anaesthetic, even in skilled hands, does not lessen this danger. One of the common causes of maternal morbidity and mortality is the inhalation of vomitus following a general anaesthetic.

In most of the smaller hospitals in Malaysia, a skilled anaesthetic service is lacking and often the maternity sister is called upon to administer a general anaesthetic. Even in the large general hospital, there is usually only one fully qualified anaesthetist to cater for the whole hospital. Under these conditions, a general anaesthetic for the common obstetrical emergency of retained placenta becomes impracticable. Further, a few labour rooms are properly equipped to cater for the administration of a safe general anaesthetic, i.e., a table which can easily be tilted head down, and proper suction apparatus for the aspiration of vomitus should it occur.

Hypoaesthesia has three outstanding qualities — analgesia, freedom from anxiety and amnesia. The present study showed that in the vast majority of cases (29 out of 30 cases) hypoaesthesia was found to be very suitable for the operation of manual removal of placenta. The procedure is safe and the study

revealed that the level of analgesia was sufficient to undertake the operation without causing pain or distress to the patient. Another notable feature was the complete absence of vomiting and its attendant danger of inhalation

The one case of failure in the series was due to a tightly constricted cervix. In such cases, hypoaesthesia is unsuitable (Crawford 1965). Cases of such a nature are, however, not common, and the need for a general anaesthetic will arise only occasionally.

The three cases which registered a fall in blood pressure deserve comment. The pethidine and sparine mixture, if injected rapidly and in an undiluted form, will cause maternal hypotension. As emphasised previously, the drugs must be **diluted** and given **very slowly** if a fall in blood pressure is to be avoided. If the technique is correctly followed, as Coxon (1961) remarks, the mother will not be rendered hypotensive, and will suffer no nausea vomiting or 'hangover'. A further very important point is that cases in shock must be adequately resuscitated and blood volume restored before hypoaesthesia is induced. In retrospect, the three cases whose blood pressures fell were hypovolaemic and fluid replacement was inadequate before the injection of drugs. The fall could have been avoided had adequate fluids been given. Thus resuscitation and fluid replacement must be thorough. Fifteen cases out of the series were in oligaemic shock and after resuscitation, none of them showed any fall in blood pressure on giving the injection. Thus, with due precaution, shocked patients are also suitable for hypoaesthesia.

Hypoaesthesia has distinct advantages over general anaesthesia:

1. The risk of vomiting is abolished.
2. The technique is suitable for use by the single — handed obstetrician and also for domiciliary practice.
3. No expensive equipment or drugs are needed.
4. The technique is easy to master.
5. It is suitable for the small rural hospital as well as the large general hospitals.

Hypoaesthesia demands good patient handling. There is no place for roughness in operative technique and gentleness is essential as in all obstetric manipulations.

CONCLUSION

The technique of hypoaesthesia is eminently suitable for the operation of manual removal of placenta. It offers freedom from pain and discomfort for the patient and abolishes the dangers of vomiting. It is an

easy technique to master and it has wide suitability for the small as well as the large maternity unit. The only cases unsuitable for this form of anaesthesia are the ones with a tightly constricted cervix. The method is safe and its use should make a "a general anaesthetic rarely needed for the operation of manual removal placenta." (Crawford 1965).

SUMMARY

In 30 patients, the operation of manual removal of placenta was performed under hypoaesthesia. The drugs used were 12.5 mgm of pethidine and 12.5 mgm of sparine in a dilute solution and given very slowly intravenously. The method was found to be very suitable for the operation, and it can replace the

need for a general anaesthetic.

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