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The case for an obstetric anaesthetic service

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Anaesthesia, the thief of pain, has spread far beyond the narrow confines of the pain associated with an actual operative proceedure. Today it thieves pain wherever pain may be, however the pain may be and whatever the associated symptomatology.

Though there is at present no perfect way of ensuring "pain-free" labour, the traditional idea that women must bring forth in sorrow and suffering should no longer hold true for there are a great variety of drugs both locally acting and generally acting and a great many proceedures both general and local that do very successfully and safely control the pain of labour.

Conditions necessary for success

If, however these drugs and proceedures are to give consistent success, the following criteria must be fulfilled—the doctor must know what he is doing, the midwife must know what is being done and most important the patient must know of the physiological proceedures of labour taking place in her body and the efforts being made by her Doctor and the labour-room staff to bring her comfortably through to a successful delivery.

The Doctor

The doctor who should know best the drugs and proceedures that may be used to control pain (of labour) is the Anaesthetist. Not only are these his everyday "tools" but he has the knowledge to detect and correct any toxic reactions or complications that may follow the use of these "tools". The Anaesthetist, therefore, should master mind, plan and direct the analgesic scheme to be followed for each and every patient in labour.

The Patient

An educated patient is one who is knowledgeable of the physiological processess of labour and of the apparatus and technics of analgesia intended for her. Instruction in the former could also be, indeed it should be, the responsibility of the Anaesthetist for the detailed knowledge of the Obstetrician is unnecessary for the patient's purposes. Instruction and familiarity will require time and repetition and to buy time, once the diagnosis of pregnancy is certain and the Obstetrician has decided that pregnancy is unlikely to be terminated by Caesarean Section, the patient must also become a charge of the Anaesthetist without delay.

Additionally, the patient's physical and mental condition could be built up to peak condition in this time. Assistance from the other disciplines of medicine may be necessary for this purpose.

The Labour-room staff

The midwife and all grades of labour-room staff must also be knowledgeable of the scheme or schemes of analgesia that are to be used and should be lectured and demonstrated to by the Anaesthetist as often as is necessary each year for this purpose.

Only in the knowledge that he has knowledgeable and competent labour-room staff and a patient consciously convinced that she is in peak physical and mental condition, can the Anaesthetist be reasonably expectant of a safe, comfortable and pain free confinement for his patient.

Definition of Pain-Free Labour

Confinement that is pain free does not mean—and this is very clearly impressed on the

patient—that the confinement is free of all sensation. This would be a complete failure of technic. Of what profit is it for a woman to walk into a hospital one day and walk out another with an infant in her arms and not have had any experience of the birth process? Worse still if she were made amnesic for this experience.

Awareness of the birth process and the passage of the infant down the birth canal to its first lusty cries is surely the acme of a woman's life. Sensations must be preserved, but at no time must there be any pain.

Pain and its control

Sensations from the Uterus and the upper Vagina are carried to the Brain via Thoracic nerves, ten, eleven and twelve and sensations from the lower Vagina and perineum via Sacral nerves two, three and four. The pain of labour could therefore be obtunded by drugs acting either on the Brain or on the somatic nerves.

The analgesic activity alone without the other multiple pharmacological effects of the centrally acting drugs like Morphine, Hyoscine, Pethidine and of the anaesthetic agents such as, Nitrous oxide, Ether, Trilene and Chloroform cannot be relied on and they are, therefore, not to be preferred. The locally acting analgesic drugs like Procaine or Lignocaine, by careful selection of dosage, can, on the other hand, obtund pain and pain alone leaving the other sensory modalities unimpared or weakly impared and are the drugs of choice.

Extradural Block

Of the technics of using locally acting analgesic drugs, that of extradural blockade is the method of choice. The extradural space is needled at the first or second Lumbar interspace and 15 to 20 cc. of 0.5% Lignocaine Hydrochlorine with 1/250,000 Adrenaline solution injected. If labour is expected to last far more than an hour, a nylon catheter threddled into the space and Lignocaine injected down it at appropriate intervals will ensure analgesic blockade for as long as is desired and is to be preferred to multiple needlings of the extradural space. Also, once the catheter is positioned and the block established, subsequent injections of Lignocaine can be left to the midwife in safety. Other major advantages of this technic are that the patient remains conscious, she can continue to feed and she can help to bear down when required to. This last is important as all women do desire to play an active part in the delivery of their infants.

However, there are disadvantages to this technic. The injection may be difficult, labour is slowed initially and the need for low forceps deliveries increases. Sensitivity to Lignocaine is a remote possibility.

Hypnosis

A technic that has all the advantages of extradural blockade and none of its disadvantages is Hypnosis and it is surprising that it is so little used through out the world.

Hypnosis is the state of "mind over matter" and is induced by the patient herself with the aid of the Anaesthetist initially. Hypnosis can be induced in every patient who is motivated to this technic. Motivation—the desire to be relieved of the pains of labour—is present in all expectant mothers but knowledge of the state of Hypnosis is lacking. This latter can be made good by instruction by the Anaesthetist and if hypnosis is then accepted, hypnosis sessions can be commenced. These sessions can be individual at first and in groups later.

Relaxation of the birth canal is very readily produced in the light planes of hypnosis that is possible in every patient but complete operative analgesia of the perineum is obtained only in deep hypnosis to which only a few patients can descend. The majority of cases may, therefore, need a local analgesic block of the perineum for the actual delivery but all patients will have a comfortable and rapid progress of labour because of the hypno-relaxation.

Transference of the "rapport" between the Anaesthetist and the patient to a third part—the midwife or the husband or the Obstetrician—not only guarantees continuance of the hypnosis in the obscene of the Anaesthetist but, in the case of the husband, is an answer to his prayer. Which husband does not want maximally to help and share in the experience of the birth of his child!

General Anaesthesia

With good prenatal preparation and analgesic management there will be little if any indication for general anaesthesia in obstetrics. Put the other way, general anaesthesia will be indicated when there is no mental or physical preparation—or none is possible—as is the case of "unbooked" patients.

Another absolute indication for general anaesthesia are patients where local analgesic technics are impossible because of sepsis at the site of injections or because of known or suspected 'sensitivety' to the local analgesic drugs.

In "booked" patients *i.e.* patients who have been mentally and physically prepared, general anaesthesia will have to be considered only when unforseen complications suddenly seriously threaten the life of the patient before analgesic management of labour has been successfully established—bleeding Placenta Praevia, premature separation of Placenta.

Other Therapeutic Aspects of Anaesthesia

In addition to pain relief, Anaesthesia has other immense therapeutic and at least one diagnostic aspect to offer the obstetric patient. The treatment of toxic reactions following the misuse of local analgesic and narcotic drugs; infant resuscitation when the Paediatrician is not available, the resuscitation of all cases of shock, particularly haemorrhagic shock, whether in the patient's home or in the ambulance or in the hospital are some of the more obvious services for which the Anaesthetist can be responsible.

Less obvious but progressively coming to the forefront is the place of anaesthetic proceedures in the management of complications, such as aspiration pneumonias, pulmonary collapse, shock, cardio-vascular failure and respiratory failure. Indeed, the first 24-48 hours of the post-natal period of every patient whether or not an anaesthetic technic had been administered to her, should come under the care of an Anaesthetist.

The management of severe hypertension and 'fits' of the toxaemias of pregnancy is by use of sedative and Hypotensive agents. Myriads of these drugs have been tried with little satisfactory results and some deaths because of these drugs and despite the very strict nursing care mandatory with their use. Extradural blockade, alternatively, can certainly correct hypertension and this together with some sedation following on the absorbtion of the local analgesic from the extradural space, controls 'fits'—and this both in a patient who is rational, co-operative and capable of looking after herself. Further, if it is decided that pregnancy is to be terminated this can, unlike the patient under sedative and hypotensive agents, be done safely merely by increasing the degree of blockade.

A Diagnostic Aspect

The one important diagnostic facet that Anaesthesia can offer is the diagnosis of Oesophageal atresias at birth. Every infant, particularly those delivered by Section, who give trouble to initiate or breathe adequately immediately after delivery should be suspected of this abnormality and an attempt be made immediately to intubate and aspirate the stomach. Inability to intubate the stomach confirms the suspicion absolutely and immediate curative reconstructive surgery should be instituted. Only thus can the present 100% mortality in these cases be reduced.