WHY USE SPINAL ANAESTHESIA IN OBSTETRICS?*

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THE question of the use of Spinal Anaesthesia in obstetrics may be approached from two points of view, there being anaesthetists who feel that one should never use spinal anaesthesia, and others who would use it at every possible opportunity.

Let us first consider the question, "Why should one ever use spinal anaesthesia in obstetrics?" A recent writer (1) has declared that a certain number of healthy young women are doomed to death because of the continuing use of spinal anaesthesia in obstetrics. Another (2) cites the horrible complications which have occurred after subarachnoid injections for anaesthesia. I wish to state most emphatically that one should never employ a spinal technique unless one is prepared to observe the most exacting rules for its proper use. Such rules have been reiterated many times (3, 4), the most important to our minds being the autoclaving of all solutions and the use of dilute preparations of the drugs. These precautions, with meticulous surgical technique, round out a safe method. Undoubtedly when one is unable to make a lumbar tap quickly and easily in any particular case (and preferably with a No. 22 gauge needle or finer), the spinal technique should not be employed. Repeated jabbing serves only to traumatize the back, tends to cause post-spinal backache, and serves to discredit the method. Further, one should never employ spinal anaesthesia over the clear-cut objection of the patient, though many may be more concerned about the needle than about the spinal anaesthetic. Of course one must not overlook the usual absolute contra-indications to the use of spinal anaesthesia. In obstetrics the presence of placenta praevia requires special consideration, and spinal anaesthesia is often contra-indicated.

We would recommend to those who oppose spinal anaesthesia in obstetrics and elsewhere on the basis of complications which have occurred that they look to their technique before condemning an excellent form of anaesthesia. The many good anaesthetists who continue to use this method despite the clamour attest to its safety when used properly.

In the city of Hamilton we have specialist obstetricians and a gradually increasing number of general practitioners who demand spinal anaesthesia in every possible case. We ourselves tend to favour this method for the following reasons:

1. It is the anaesthetic of choice for the parturient woman with a full stomach.
2. It is the anaesthetic of choice for the heavily sedated patient.
3. It is the anaesthetic of choice to control labour and delivery while awaiting the delayed obstetrician.
4. It is the anaesthetic of choice in premature deliveries because of the maximal perineal relaxation with no foetal depression.
5. It is the anaesthetic of choice in the gravid cardiac patient.

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6. It is the anaesthetic of preference for Caesarian section since it allows a leisurely operation without harm to the child.

7. It is the anaesthetic of preference in primiparae because of the excellent perineal relaxation.

8. It is the anaesthetic of preference for many women who wish to share in the experience of child birth.

9. The post-partum period is free of nausea and vomiting; post-spinal headache is only a very minor problem in our hospital.

The following facts and figures are from our experience at St. Joseph's Hospital, Hamilton. In 1953 there were 3,854 deliveries. For these, 1,796 patients had anaesthesia with gaseous agents (nitrous oxide with or without cyclopropane), 1,312 had ether, 90 had spinals administered by non-specialist anaesthetists. The remainder had spinal anaesthesia administered by the anaesthetic staff of the hospital. The incidence of true spinal headache was low—about 5 per cent, and a severe headache occurred only once or twice during the year.

To establish the incidence of headache for the first months of this year we have gathered data for all cases, without attempting to sort out causes. There were 839 deliveries: 383 patients received gas, and 23 complained of headache once or twice; 216 had ether with two headaches reported; 201 had spinal anaesthesia and 13 complained of headache on two or more occasions, while 14 others had transient one-day headaches. Most were relieved by A.P.C. & C. tablets, with caffeine sodium benzoate being of additional help to those with the more persistent types. Only one was of some severity.

We feel that a few points of technique should be emphasized. The most important single point is the very low dosage requirement. We use two or three mg. of pontocaine made up with 1 per cent procaine and glucose in the following manner: we mix 2 cc. of 2 per cent pontocaine with 2 cc. of 10 per cent glucose, discard one-half or three-quarters of this mixture, then draw up to 8 or 9 cc. of 1 per cent procaine into the syringe to a total volume of 10 cc. Of this mixture a dose is given to correspond with the pontocaine content, not to exceed 3 mg. The injection should take a full minute, and must not be made during a uterine contraction or the level of anaesthesia may go to the clavicles. The expected level of anaesthesia is about the tenth thoracic segment—that is, this is not a saddle block. The dosage is low and the spinal anaesthetic level is medium low. A pillow under the shoulders, with or without slight Trendelenburg tilt, will keep the anaesthetic level about the umbilicus.

Comment

We all know that no anaesthetic method is perfect in all cases. In obstetrics many women wish to be asleep, while others want to be awake. One should adapt one's technique to the patient's desires, within the limits of good anaesthetic judgement. We favour subarachnoid block for simplicity; for the quiet course of anaesthesia, delivery, and the post-partum period; for the ideal relationship to the baby; for the relaxation of the perineum; and to allow those who desire it to watch the birth of their baby. We use more of the gaseous agents than of spinals simply because the doctor or the patient wishes it for personal reasons, or

because there is not sufficient time to administer the subarachnoid block. By and large the results are good either way.

In conclusion one should simply say that the method best suited to the patient is the anaesthetic of choice in obstetrics. Whether it be gas, ether, trilene, pudendal block, or any combination which is to be employed, the best interests of the two lives involved are paramount.

Résumé

On se sert de l'anesthésie lombaire en obstétrique depuis bien des années à l'hôpital St. Joseph de Hamilton. Les résultats ont été satisfaisants. Les bons résultats dépendent d'une technique méticuleuse, d'un dosage faible de la drogue, de l'emploi de solutions diluées des drogues et du choix approprié des malades. Les séquelles post-lombaires se sont bornées à des maux de tête dans environ 5% des malades, et à des douleurs dans le dos. Il n'y a pas en de symptômes neurologiques. La technique est recommandée mais on devra observer la méthode la plus exacte de procéder.

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