CLINICAL NOTE

POSTURAL INSTILLATION

AN ADDED NOTE

By T/Major A. J. MOFFETT, R.A.M.C.

POSTURAL Instillation for the induction of local anaesthesia in the nose was first described when that technique had been used for no more than forty cases. This number appeared inadequate, but a description of the method was published as a preliminary note because it was evident that the principle was sound even if the details required modification, and because the opportunities for obtaining further cases seemed at that time to be remote. Since the original article was published I have used the technique for 160 additional anaesthetics and have also received considerable encouragement from the success of the method in the hands of other people. As a result some alterations have been made in the pre-medication and anaesthetic solution, some difficulties discovered are pointed out, and it is hoped have been at least partially surmounted.

Pre-Medication. To the injection of Morphia gr. $\frac{1}{4}$ has now been added Scopalamine gr. $\frac{1}{100}$, administered one and a quarter hours before the induction of the anaesthesia. This so subdues even the most nervous patient that the operation is unlikely to be interrupted by anything more disturbing than a snore.

The Solution. The strength of the solution has been increased to 4·0 per cent. Cocaine in 0·5 per cent. Sol. Sod. Bicarb. freshly prepared on the morning of the operation. Four c.cs. of this solution with one c.c. of $\frac{1}{1000}$ adrenaline hydrochloride is now used as the routine amount. The anaesthesia produced with this quantity and strength is so perfect that any increase in either does not appear to be indicated. The complete absence of any undesirable reactions to the cocaine suggests that a greater strength or a larger amount could be used if considered necessary.

The Induction. The technique for instilling the anaesthetic remains unchanged. Three positions are assumed by the patient, each of which is maintained for ten minutes measured by the clock.

First Position. The nostrils are first cleansed with spirit. The patient then lies upon his left side with a pillow under his left shoulder. Using this as a fulcrum the head is allowed to drop in the strictly lateral position until it assumes an angle of 45 degrees with the vertical. One-third of the total solution is drawn into a small syringe on which is mounted a knob-ended, angled needle with lateral hobs depicted in the original article. As an improvisation an ordinary glass dropper can be used. A drop or two of the solution is first massaged into the anterior part of the septum. The remainder is divided equally between the two sides of the nose by introducing the needle along the

https://doi.org/10.1017/S0022215100007131 Published online by Cambridge University Press

floor of the nasal cavities and squirting half of the contents of the syringe into each.

Second Position. At the end of the requisite ten minutes the second third of the anaesthetic solution is similarly divided between the two sides of the nose, the patient pinches his nose with his right forefinger and thumb and maintaining his grip to prevent the fluid running out, rolls forwards on to his face. It is here that the increased strength of the pre-medication may cause trouble. The patient is sometimes so sleepy that he allows his grip to relax and a little of the fluid runs out. If the head is well flexed the amount that escapes is not sufficient to affect the anaesthetic.

The Third Position is then assumed. It is similar to the first position except that the patient lies upon his right side. It is important when assuming this position that he should not relax his grip upon the nostrils until the pillow under the shoulder has been arranged, and that the head is raised as little as possible during the change. It is also important that he should roll directly from the prone position on to the right shoulder, and not first on to his back as is sometimes done. If this happens any unabsorbed solution will run down the throat and be lost for anaesthetic purposes as well as possibly producing unpleasant symptoms. When the third position has been assumed the remainder of the anaesthetic fluid is divided between the two nostrils.

If a septum operation is to be performed it is usually necessary to inject the columella and base of the septum with one or two c.cs. of 1·0 per cent. Novocaine or some similar anaesthetic. A wait of many minutes between the completion of the anaesthetic and the beginning of the operation can be made without any detriment to the anaesthesia.

Post-Operative Problems. It does not appear that there is any greater tendency to post-operative haemorrhage when this technique has been employed. It has been said that there is a liability for a post-operative haematoma to form in septum operations as a result of the injection of Novocaine and Adrenaline used to anaesthetize the region of the columella. It is probable that the haematoma is produced because the anaesthetic method provides such a bloodless field that a technically perfect operation becomes much more likely. If it is the surgeon's custom to suture the septum incision, and no alternative drain has been inadvertently made, it is advisable to incise the muco-perichondrium near the floor of the nose on one side, in order that any blood between the two layers will have an easy way of escape.

Difficulties. While patients with gross polyposis who have not been previously subjected to any surgical interference accept the anaesthetic readily, difficulty is sometimes experienced with those who have been the victims of multiple operations in which large portions of the turbinates have been removed while suppuration continues undrained in the sinuses. This difficulty is due to the fact that contact between the anaesthetic solution and the mucous membrane is hindered by the presence of pus, and because the scarring produced by previous operations has made the mucous membrane unabsorbent. Should the surgeon feel himself compelled to interfere further with these cases this difficulty can generally be overcome by cleansing the nose of all crusts by forceps or douches and by emptying the sinuses of pus by daily suction displacement treatment for a few days before operation.

https://doi.org/10.1017/S0022215100007131 Published online by Cambridge University Press

Clinical Note

I now consider that the principles upon which the technique of Postural Instillation has been founded have been shown in practice to be sound. I do not doubt, however, that various improvements and modifications will be effected in the hands of other users. I am indebted to numerous colleagues for their direct and indirect communications of criticism and advice on the technique. The needle used in the instillation may be obtained from P. Harris & Co. Ltd., Edmund Street, Birmingham.

REFERENCES

MOFFETT, A. J., "Postural Instillation," *J. Laryng. and Otol.*, Dec., 1941.

https://doi.org/10.1017/S0022215100007131 Published online by Cambridge University Press