

Transnasal Approach to Sphenopalatine Ganglion Blockade: An Alternate Technique

Sir,
Palliative pain treatment for head and neck cancers manifesting as intractable atypical facial pains, headaches, and deep-seated otalgias is one of the indications for sphenopalatine ganglion blockade (SPGB). Similar benign pains could also be indications.^[1]

The anatomical distortion of tissues by oral cancers, surgery, or post-radiation fibrosis often makes the approach to the ganglion by the lateral or greater palatine foramen difficult by masking the landmarks. This makes transnasal approach an attractive option. During such an approach performed commonly with cotton-tipped applicator, it is

likely to encounter technical difficulties (due to polyps, deviated septum, spurs, or hypertrophied turbinates; anatomical distortion produced by post-maxillectomy hollow) or traumatize the nasal mucosa.^[2]

We herein describe yet another alternate technique of delivering the medications to the SPG apart from those that find mention in the literature.^[3-6] The compliance of the patient for the technique is ensured by lubricating the nostril on the side of the proposed block with Lignocaine hydrochloride jelly (LOX 2% jelly). The position of the middle turbinate is assessed by the point on external nasal wall in the plane of the zygomatic arch and the frontal process of maxillary bone. The distance of this point to the ala nasae is measured approximately. An epidural catheter without the filter (PORTEX SYSTEM 1, Smiths medical) previously stiffened by placing it in ice-cold water for 15–20 minutes in order to maintain its natural curve during progression in the nasal passage is then introduced to a length 0.5–1 cm more than the calculated distance of the middle turbinate from the ala of the nose. The extra length and the stiff curve ensure the placement of the catheter approximately near the SPG fossa that is normally located a few mm deep to the nasal mucosa. In patients with post-maxillectomy hollow, the length of the catheter to be inserted can be assessed approximately by finding it on the opposite normal nostril. Besides, though in these conditions, the bone is removed, the middle turbinate behind which the ganglion is situated is normally left intact. We usually assume the end-point to have been reached after this length has been passed though checking the position with dye spread could be confirmatory. The patient is then turned so as to make the side to be blocked dependant. The patient is instructed to indicate any bitter taste of local anesthetic reaching the throat by raising a finger whereupon the performer can withhold further injection for some time. The medication (local anesthetic [0.5 ml of Lignocaine hydrochloride {Loxicard 2% NEON} + steroid [1 ml of Betamethasone {Betnesol 4 mg/ml, GLAXO}]) is given in very slow titration—0.1 ml per minute per aliquot with a 2 ml syringe because when used in head and neck cancer patients with post-radiation fibrosis and secretions/infection, the absorption is slow and erratic. The slow administration also avoids trickling of the local anesthesia (LA) to the naso and oropharynx as well as anesthetizing it and blocking the swallowing reflex which is very uncomfortable to the patients. Moreover, 0.5 ml of 2% Lignocaine hydrochloride is injected first at the rate mentioned; after 10 minutes elapses, 1.0 ml of Betamethasone is injected at the same

rate; at the end of the injection of this volume, 0.5 ml of Lignocaine hydrochloride is pushed to remove the steroid remaining in the dead space of the catheter which is about 0.3 ml when the filter is not attached. This method of spaced administration increases the surface area as well as the rate and amount of absorption. The position of the catheter tip can be easily maintained to optimize the drug delivery. Tearing (lacrimation) of the eye on the blocked side is a reliable sign of successful blockade as is the pain relief. The use of the catheter is simple, safe, and inexpensive; use of the 20-gauge catheter that is designed for 18-gauge needle reduces incidence of mechanical trauma as well as ensures site-specific controlled delivery of the drug. The three “eyes” situated at 0.5 cm intervals at the proximal end of the catheter serves to spray the drug in different directions, thereby covering wider surface area of the mucosa over the ganglion.

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