



**Figure 1** Optimal injection site for the superior gluteal nerve block. (A, B) New probe position for the superior gluteal nerve block. (C) Ultrasonographic view of the superior gluteal nerve block at this point. (D, E) Photographs showing the spread of dye in a cadáver. The gluteus maximus and gluteus medius muscles are dissected. (Cep, Cephalad; Lat, Lateral; Gmax, Gluteus Maximus Muscle; GMed, Gluteus Medius Muscle; GMin, Gluteus Minimus Muscle; GT, Greater Trochanter; PM, Piriformis Muscle; PSIS, Posterior Superior Iliac Spine; SGN, Superior Gluteal Nerve; SN, Sciatic Nerve; TFL, Tensor Fascia Latae muscle).

This could be a limitation, particularly for outpatient procedures. Moreover, this is a cadaveric study involving a limited number of samples. Further clinical trials to determine the volume of injectate are warranted.

### Conflicts of interest

The authors declare no conflicts of interest.

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## Awake nasal fibre optic intubation — a simple manoeuvre for easy navigation of the fiberscope through the nasopharynx



### Intubação nasal guiada por fibra óptica em paciente acordado — uma manobra simples para facilitar a navegação do fibroscópio através da nasofaringe

Dear Editor,

Awake nasal Fibre Optic Intubation (FOI) is the technique of choice in an anticipated difficult airway and therefore an essential skill set in an anaesthesiologists armamentar-

ium. However, it takes time to acquire and develop the skills needed to perform a FOI. One of the primary skills in the initial training period is the ability of the endoscopist to navigate the fiberoptic scope in the right direction i.e. the glottis. The correct technique to achieve this is by looking for the “dark airspace” and directing the scope towards it. This is often difficult because of upper airway closing on the scope leading to loss of visibility or a “Red out”. The novice endoscopist then feels lost with no sense of direction. This loss of visibility of the airway space is commonly encountered in the narrowest part of the pharynx called the nasopharynx or the retropalatal airway. This problem is often exaggerated in patients with obesity or obstructive sleep apnea who may be the ideal candidates for an awake nasal FOI. Obese individuals often have excess fat deposits at the level of the palatopharynx which may cause dis-

placement of soft tissues further narrowing the retropalatal airspace. Patients with OSA may have a long, bulky and floppy soft palate as a result of fat deposits and mechanical injury due to heavy snoring leading to airway narrowing.<sup>1</sup>

We describe a simple manoeuvre to facilitate easy navigation of the fiberscope through the nasopharynx into the oropharynx. After adequate topicalisation of the airway, the fiberscope is inserted into the selected naris and past the turbinates. Before moving the scope any further, the patient is asked to breathe through the nose which opens up the narrow nasopharynx bringing the dark airspace in view. The scope can then easily be navigated towards the airspace and into the oropharynx without the obstruction caused by the nasopharyngeal tissue.

During awake nasal FOI, it is a natural instinct for the patient to breathe through the mouth. During mouth breathing, the soft palate elevates thus reducing the size of the nasopharyngeal airway. This may also be seen during phonation and swallowing. Crying may even cause the retropharyngeal wall to bulge forward, making the situation worse.<sup>2</sup> On the other hand, isolated nasal breathing is known to distend the nasopharyngeal airway. The size and dynamics of the upper airway assessed during respiration using ultrafast computerized tomography showed that the airway posterior to the soft palate remained open throughout the respiratory cycle in nasal breathing. Whereas with primary mouth breathing, the airway either remained the same size, narrow, or gets totally obliterated.<sup>3</sup>

In conclusion, during awake nasal FOI, a simple manoeuvre of asking the patient to breathe through the nasal route helps in easy navigation of the fiberoptic scope through the nasopharynx.

## Conflicts of interest

The authors declare no conflicts of interest.

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