

Letter to the Editors

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Dear Editors,

We read with great interest the article titled ‘Effect of surgery, delivery device and head position on sinus irrigant penetration in a cadaver model’ by Mozzanica *et al.*¹ in your esteemed journal. It is a succinctly written article and we would like to commend the authors on their excellent effort. This is an area of interest for us and we are currently conducting a study on the same. Hence, we would like to highlight a few more points that we feel would enrich the article further.

The authors pointed out that there is no significant advantage of the head position for irrigation of the sphenoid sinuses. In contrast, Craig *et al.*² assert that the ‘nose-to-ceiling’ position can improve sphenoid sinus penetration of irrigation after sinus surgical procedures. This was demonstrated in their computational fluid dynamics model, which showed good penetration of sphenoid sinuses, both ipsilateral and contralateral to the side of irrigation. Similarly, our observations in our ongoing study also show that in patients with recalcitrant sphenoid sinus disease, nose-to-ceiling head positioning can improve mechanical lavage and medication delivery to the sphenoid sinus.

We agree that high-volume, high-pressure devices for sinus irrigation yield better results in post-operative patients, which has been our experience too. Thomas *et al.*³ recommend the use of high-volume devices to overcome unfavourable nasal anatomy, and Barham *et al.*⁴ suggest a delivery device volume of more than 100 ml to achieve effective delivery into the sinuses. Taken together, this would suggest that if the volume of topical agent used is sufficiently large enough to fill the nasal cavity and propel the topical agents into the paranasal sinuses, then head positioning would be a secondary consideration.

It was interesting to note there was no improvement in irrigation after a Draf III procedure over a Draf IIa procedure. This is in contrast to the dramatic improvement observed after the Draf III procedure in the study by Barham *et al.*⁴ On a related note, Spielman *et al.*⁵ inferred that achieving zero-degree visualisation of the frontal recess intra-operatively by resecting the middle turbinate axilla – agger nasi complex in a standard Draf IIa frontal sinusotomy can significantly improve post-operative irrigant penetration. This is an area of divergence that requires further study.

References

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