

## Point-of-care nasal ultrasonography: A novel technique using “hockey stick” probe

Sir,  
 Ultrasonography of upper airway has evolved in recent years but there is no mention of any technique for nasal ultrasonography to determine the nasal patency. Although a case was reported by Shah *et al.*, there was no mention of the type of ultrasound probe and the position of the probe during ultrasonography.<sup>[1]</sup> In the present study, we describe a novel technique for an ultrasound of the nose with the help of the “hockey stick” probe (HSP) to obtain exact image during a routine examination in human volunteers. The small-footprint linear array transducer is also called a hockey-stick transducer and has a higher frequency compared with other transducers.<sup>[2]</sup> This transducer is used for evaluating small superficial structures as it has better image resolution.<sup>[2]</sup> It is not used for deeper structures because of its small field of view and limited depth penetration. The position of the probe and parts of the nasal cavity during ultrasonography using HSP is shown in Figures 1 and 2. This technique can be helpful for selecting correct nostril for nasotracheal intubation and nasogastric tube insertion. Thus, we have found HSP to be more effective for obtaining better quality image than the linear probe

for point-of-care nasal ultrasonography. It can also help to diagnose deviated nasal septum in patients who should not be exposed to radiation.<sup>[3,4]</sup>

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### Conflicts of interest

There are no conflicts of interest.

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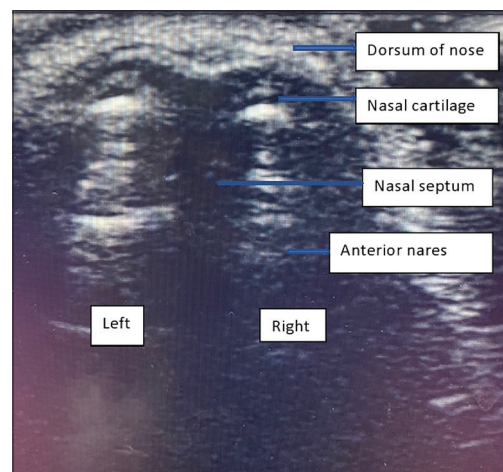
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**Figure 1:** Figure depicting the position of “hockey stick” probe for the nasal ultrasound and the corresponding image




**Figure 2:** Figure depicting the ultrasound visualized nasal anatomy

## References

1. Shah SB, Pahade A, Chawla R, Goel N. Ultrasound for predicting the suitable nostril for nasotracheal intubation: Look before you leap! Saudi J Anaesth 2019;13:145-7.
2. Saini V, Samra T. Ultrasound guided supraclavicular subclavian cannulation: A novel technique using “hockey stick” probe. J Emerg Trauma Shock 2015;8:72-3.
3. Chi SI, Park S, Joo L-A, Shin TJ, Kim HJ, Seo K-S. Identifying the more suitable nostril for nasotracheal intubation using radiographs. J Dent Anesth Pain Med 2016;16:103-9.
4. Gossner J. Sonography of the nasal cartilage: Technique and normal anatomy. J Ultrasound 2014;17:317-9.

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