Diaphragmatic movement (sonographically assessed) is not affected in patients who receive the ISO block. The ISO block anaesthetizes the entire innervation of the shoulder joint and muscles. By adding skin infiltration at incision, a totally opioid-free anaesthetic can be achieved.

Declaration of interest
None declared.

References

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Lip, tooth, and pharyngeal injuries during tracheal intubation at a teaching hospital

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Editor—A non-negligible number of patients suffer injury to the lips, teeth, or pharynx during tracheal intubation, but the incidence of such injuries at teaching hospitals has not been clarified. This prospective observational study surveyed the occurrence of lip, tooth, and pharyngeal injuries associated with tracheal intubation by trainee doctors at a teaching hospital (Osaka Medical College, Japan) to compare incidence rates during the early and late training stages. This study was approved by our institutional review board (approval number Clin293). From April to July 2016, we observed 476 tracheal intubations performed by 16 initial trainee doctors. As each trainee doctor completes a 2 month anaesthesia training module, we compared the number of incidents in early (first month) vs late (second month) stages. Supervising anaesthetists checked the occurrence of lip, tooth, and pharyngeal injuries. Our survey revealed lip injury in 94 of 474 patients (20%), tooth injury in one patient, and pharyngeal damage in 12 patients. The incidence of lip injury was significantly higher in the late stage than in the early stage of training (early, 22 of 265 patients; late, 72 of 209 patients; P < 0.001). Tooth injury was noted only in the late stage. The incidence of pharyngeal damage did not differ significantly between early and late stages (early, five of 265 patients; late, seven 209 patients; P = 0.38).

The higher incidence of lip injury in the late stage compared with the early stage might be explained by the fact that trainees tend to focus more on laryngoscopy and tracheal tube passage through the glottis than on preventing lip injury before their skills develop. The incidence of hoarseness and pharyngeal pain after tracheal intubation has been shown to remain unchanged. However, there is a possibility that the incidence of soft tissue injuries is high among novice doctors, suggesting the need for preventive measures. A future study should be conducted to compare the incidence of lip, tooth, and pharyngeal injuries between trainees and supervisors. Our observational study regarding lip, tooth, and pharyngeal injuries during tracheal intubation highlights the need for trainee doctors to exercise caution in order to reduce intubation-related complications, in both the early and the late training stages.

Declaration of interest
None declared.

References

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