



AB094. SOH23ABS_067. Revisiting the role of submental intubation in maxillofacial trauma cases

Maeve Barry, Conor Bowe, John O'Connell,
Jack Collins, Rebecca Fanning,
Gerard Kearns

Oral and Maxillofacial Department, St James Hospital, James St,
Dublin, Ireland

Background: Airway management in maxillofacial trauma cases can prove particularly challenging as often the conventional methods of intubation are unsuitable. Standard orotracheal intubation may be a hinderance to the surgeon who may need to perform intra-operative maxillomandibular fixation. Nasotracheal intubation, a commonly used alternative is often not appropriate either particularly if there is a nasal fracture or base of skull fracture present. Clear communication between the anaesthetist and surgeon is paramount for successful intubation as both parties are forced to share the same working space. In these types of trauma cases Submental Intubation provides an excellent choice for airway securement. The Submental Intubation technique as an alternative method of airway management was first described in 1986 by Hernandez Altemir. It is a safe and effective method of intubation with a low risk of morbidity. It provides access to maxillofacial fractures without interference from an anaesthetic tube enabling maxillomandibular fixation and access to naso-orbito-ethmoid fractures. It avoids the need for tracheostomy which has many reported complications including post-op bleeding, surgical emphysema, tracheostomy site infections, nerve injury, tracheal stenosis, poor scar aesthetics, tracheoarterial fistula and death. Submental intubation has no associated major complications when compared to tracheostomy.

Methods: This is a retrospective review of patients whom submental intubation was performed on in The Maxillofacial Unit in St James's Hospital, Dublin, Ireland. It supports an existing paper published on the topic in 2012; DOI: 10.1007/s11845-012-0886-6. The following variables were assessed: patient age and gender, preoperative diagnosis and any post operative complications which developed as a result of the use of this intubation technique.

Results: In total, there were 19 new cases of submental intubation in the data re-analysed. Of these 19 new cases the success rate for submental intubation was 100% and there were no post-operative complications observed. Tracheostomy was avoided in all cases analysed.

Conclusions: Submental intubation remains a safe and reliable option for airway management in certain trauma cases in maxillofacial surgery. It is a time efficient method with a much lower morbidity rate when compared with tracheostomy. It has proven itself to be a great choice for securing the airway in trauma cases where conventional methods are unsuitable and where long term ventilatory support is not anticipated. Submental intubation should be considered in all maxillofacial trauma cases where either nasal- or oro-tracheal intubation is not suitable. The use of submental intubation over tracheostomy in appropriate cases may significantly reduce morbidity.

Keywords: Airway management; anaesthesia; maxillofacial surgery; maxillofacial trauma; submental intubation

Acknowledgments

Funding: None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

doi: 10.21037/map-23-ab094

Cite this abstract as: Barry M, Bowe C, O'Connell J, Collins J, Fanning R, Kearns G. AB094. SOH23ABS_067. Revisiting the role of submental intubation in maxillofacial trauma cases. *Mesentery Peritoneum* 2023;7:AB094.