Scandinavian SSAI clinical practice guideline on the use of Video Laryngoscopy versus Direct Laryngoscopy in emergency cesarean section.

Andreas Frydshou, Arfat Waheed, Cristina Tus, Sanna Dahl, Susanna Kaivola

Deptt of Anesthesia, Nordsjaellands Hospiatl, Capital Region, Copenhagen Denmark
Deptt of Anesthesia , SKMCA , UAE
Deptt of. Anesthesia Hudiksvall , Sweden
Deptt of Anesthesia and Intensive Care , Nykopings lasarett, Sweden
Deptt of. Anesthesia Paijat-Hame central hospital, Finland

Abstract

Background: Difficult airway and incidence of failed intubations during cesarean delivery are higher than non-obstetric population. Videolaryngoscopy(VL) improves glottic visualisation and has proven to be useful in the management of difficult non-obstetric airway, [1,2] . Difficult Airway Society (DAS) recommend that videolaryngoscopy should be immediately available when managing the obstetric airway [3] .Though some small studies support role of VL in cesarean as rescue device or even as primary device in predicted difficult airway, but still concerns remain that VL as compared to Direct Laryngoscopy(DL) may prolong the time to intubation. This is especially relevant in obstetric population where patients have limited apnoea time. With this question in mind we decided to study literature and found 4 RCTs relevent to our topic .

Objective: Our primary outcome was to assess whether use of videolaryngoscopy for tracheal intubation in pregnant woman undergoing emergency cesarian delivery under general anaesthesia affects the time required for tracheal intubation. Secondary outcomes: first pass success rate and percentage of glottic opening(POGO).

Material and methods: Using the PubMed system we identified the relevent studies, that partially meet the eligibility criteria: same intervention, same outcome but slightly different populations. We used the PICO method to formulate the clinical question and then used the GRADE system to create Summary of findings (SoF) and Evidence Profile (EP) Table. We downgraded the studies for surrogate population. Quality of evidence was rated from very low to high and the recommendation was classified as weak to strong.

Results : We identified 2 meta analysis, both with a large variety in terms of population, usually pregnancy as exclusion criteria, different types of videolaryngoscope used, and 4 RCTs all in elective cesarean setting. There is scant obstetric specific evidence for the utility of videolaryngoscopy in the literature, so we chose to include the four RCTs in our analysis and extrapolate the results to patients undergoing emergency cesarean . Videolaryngoscopy affects time required for tracheal intubation, with a mean difference of 1.39 sec. RR was 1.02 for the first pass success rate and videolaryngoscopy improves percentage of glottic opening(POGO) by 6.86%.
Conclusion: The quality of findings ranks from low to very low across the different outcomes. The decision of whether videolaryngoscopy should be used as a first line device in management of patients undergoing emergency cesarean needs further studies in a similar population to create strong recommendations.

References

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