A Case Report Describing the Use of the Glidescope Video Laryngoscope as a Rescue Device in a Parturient in the Setting of Cesarian Delivery

Abstract Type: Case Report/Case Series
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Purpose: Pregnancy is a state of fluid retention and studies have shown that the laryngeal view increases at least one grade up in difficulty throughout the course of labour. In addition to this, other physiological changes during pregnancy can hinder the anesthesiologist in securing an airway with direct laryngoscopy. We discuss a case in which intubation was accomplished using a glidescope video laryngoscope (GVL), when direct laryngoscopy had failed.

Clinical Features: An ASA 3 adult parturient was diagnosed with failure to progress, and was subsequently taken to cesarean section approximately 12 hours after the onset of labour. At the time of epidural insertion it was noted that she had mild pregnancy induced hypertension. Her exam revealed a Mallampatti 3 airway with a normal TMD of >6cm and a supple neck. Unfortunately the patient did not achieve adequate surgical anesthesia after epidural top up and general anesthesia with rapid sequence induction was undertaken.

On direct laryngoscopy the senior resident achieved a Grade 3 Cormack-Lehane(CL) view. The GVL(size four) was immediately retrieved from beside the anesthetic cart and was used by the attending anesthesiologist to secure a Grade 2 view of the larynx. The cesarean delivery was completed without incident and the patient was reversed and obeying commands prior to extubation.

Discussion: The GVL has been shown to be a useful device in equaling, if not improving, laryngeal view in most patients compared to direct laryngoscopy, Sun et al. There have also been retrospective studies and case report on the high success rates of GVL use in routine clinical practice. One study showed that the first time success of intubation with a glidescope was 98% whereas rescue intubation was slightly decreased at 94%. This cannot be translated directly to the obstetric population due to the many physiology changes in pregnancy which make it more difficult to secure the airway. These include airway edema, friable airway tissue and rapid desaturation. There is also a growing percentage of parturients with increased BMI that adds further challenge to direct laryngoscopy.

Conclusion: Our case proves the usefulness of the glidescope due to the fact that our delivery rooms have a designated glidescope that is always available. Staff and residents alike rely on this tool in their difficult airway algorithm. It has proved to be lifesaving in several circumstances. It is time that glidescopes be available for each parturient, so that patient safety is never compromised.

References: