Current and Future Complications of Video Laryngoscopes

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Prespective

Magboul reported the first case of near lingual nerve injury in an elderly female patient caused by the GlideRite® Rigid Stylet (Rigid Glide Scope Stylet) in 2010. This complication was discovered during oral surgery and may have been missed if the site of surgery was not oral cavity. The intra and post-operative management of this patient was successfully managed without any further complications [1,2].

The Glide Scope Video Laryngoscope is a relatively new intubating device invented by John Allen Pacey, a general surgeon, in 2001, to provide better view of the glottis with minimal neck manipulation. The aim of this case presentation is to increase awareness for possible complications that may arise with increased usage of video laryngoscopes, and their Rigid Stylet.

Increase awareness of possible serious complications that may arise with increase use and popularity of video laryngoscopes.

There are now some lawsuits against anesthesiologist due to these complications and more may appear in the future.

The GlideRite® Rigid stylet was introduced to overcome difficulties found with intubation with GlideScope and other similar video scopes. The Stylet was invented to solve the problem of when the visibility of the cords is possible, but cannot intubate, and to reduce patient trauma when intubating with video laryngoscope the operator eyes are on the video screen more than the patient’s oral cavity. The path of the tube from the lips to the vocal cords is a total blind spot (Figure 1).

The number of injuries listed in peer reviewed journals from 2001 - 2016 were around 15 cases. In our opinion that is grossly under reported due to the fact that not all injuries are reported or were seen as worthy publications [3-9].

Figure 1: ETT Piercing the Rectomolar Trigonum Tissues, and then entering the vocal cords.

Figure 2: Time line of video Laryngoscope complications.
In March 2016 the FDA labeled a recall notice from Verathon for its GlideScope Titanium single-use video laryngoscope due to potential video problems.

Class I recall designations, and that means the product use could has an adverse effect on patients and may even cause death.

In 2014-2015 over 6500 units of Glide scope were being affected when a recall was made. Several model codes were recalled for recheck.

Before that in Nov. 2012 Verathon Inc., Bothell, Washington, initiated a voluntary recall of Glide Scope GVL. Reusable blades of GlideScope marketed in the period between December 2010 and August 2011. These blades were prone to damage and not durable and may break at the blade that may result in parts of the blade breaking off in the patient mouth and obstructing his airway.

The recall includes the several models within the specified serial number ranges of Glide Scope GVL number three. Recently I knew of some lawsuits where the video laryngoscope was implicated Figure 2.

We think the creation of a universal data bank to collect these complications will provide more evidence based knowledge to a void, predict, and create guidelines for usage of these valuable devices.

Due to the increase popularity and use of these video laryngoscopes we expect to see more complications, recalls, and lawsuits in the future. We recommend a central body to examine, approve and record complications and implication of improper use of these devices.

References