Use of the Truview PCD™ Optical Video Laryngoscope for Intubation of a Morbidly Obese Patient

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Introduction:
Recent advances in airway management have resulted in the advent of various optical and video laryngoscopes. These devices possess a wide field of view and provide a clear and magnified view of the glottis. Also, they can improve the laryngeal view by up to 2 grades. The Truview PCD™ (Truphatek International Ltd., Netanya, Israel) (Fig 1,2,3) is one such device that is unique in that it utilizes a steady stream of oxygen to defog the lens, keeps the optics free of secretions and helps to passively oxygenate the patient. We describe the use of the Truview PCD™ for the management of a morbidly obese patient with a potentially difficult airway.

Case Presentation:
A 16 year old, morbidly obese (144 Kg, BMI 42) female presented to our operating room for incision and drainage of a pilonidal cyst abscess. Her medical history was complicated by asthma, gastro esophageal reflux disease GERD), attention deficit hyperactivity disorder (ADHD), and bipolar disorder. Her airway examination was significant for a relatively small mouth, limited mandibular protrusion, and a Grade 2 Mallampati score. Her vital signs were stable and a routine pregnancy test was negative. Upon arrival in the operating room, standard ASA monitors were applied and preoxygenation performed. A smooth modified rapid sequence induction was performed using appropriate doses of lidocaine, propofol, rocuronium, and fentanyl. Using a supply tubing, oxygen was insufflated through the integral side port at a rate of 8 Liter/minute. Videolaryngoscopy using the Truview PCD™ was then performed. A Cochrane & Lehane grade 1 view of the larynx was obtained and a styletted endotracheal tube was easily placed. Endotracheal tube placement was confirmed by a sustained capnographic tracing and bilateral breath sounds. A 16F Salem sump orogastric tube was also inserted. The patient was then positioned prone with padding of all pressure points. Following completion of the procedure, the patient was placed supine and was extubated. She was transferred to the recovery unit in stable condition. The rest of her hospitalization was uneventful.

Discussion:
The Truview PCD™ is a relatively new videolaryngoscope and is an improvement over the Truviev EVO2. It consists of reusable stainless steel blades, a view tube, an oxygen insufflation port, a camera head that attaches to the proximal part of the view tube, a handle that provides the light source, and a portable (5.5” battery- powered) monitor. The distal lens is essentially a prism with a 47 degree anterior view. The proximal lens magnifies the acquired image. In this particular case, we utilized the advantages of the Truview PCD video laryngoscope to easily accomplish intubation in what might have been a difficult direct laryngoscopy. Since a single case report does not prove efficacy or safety, we propose that a detailed scientific evaluation of the Truview PCD™ video laryngoscope for both the normal and abnormal airways be undertaken in order to establish its place in the ever evolving field of video laryngoscopy.

References: