

TotalTrack VLM Use in a Predicted Difficult Airway

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Background

The TotalTrack VLM is new airway device recently introduced into the UK. The manufacturers state that it is,

“The only device that allows for positive pressure oxygenation n the ventilation and intubation and extubation mode with continuous visualization”

It is essentially a video LMA that allows the user to intubate the patient through the device under vision whilst continuously ventilating and maintaining oxygen saturations

The indications are stated as being in both routine and expected difficult situations in theatre, in ITU and as a rescue device.

The Kings airway team had the opportunity to trial the device and during this period it was used for an interesting case that may well have proved much more awkward without the new equipment.



The Patient

The patient was a 32 year old female booked for an elective laparoscopic sleeve gastrectomy. She had central obesity, weighed 140KG and had a BMI of 58. In terms of past medical history asthmatic and had required 3 ITU admissions in the past (once in the last 6 months) she also suffered symptomatic obstructive sleep apnoea requiring nocturnal home CPAP.

She had undergone previous uneventful general anaesthetics when she was younger and considerably less obese.

Airway assessment revealed she had a short neck and a large tongue. Her neck extension was limited and palpation of the neck was difficult. She was Mallampati 3 but had adequate interincisor distance of >2cm. She was predicted to be a potentially difficult airway

The Case

Following discussion, the airway team decided to use the VLM TotalTrack.

The patient was preoxygenated in a ramped position and induced in a standard way. Rocuronium was used for muscle paralysis.

The device was inserted and ventilation continued with 100% O2 via the LMA part of the TotalTrack. The cords were visualised using the video component and the ET tube was passed with care. This was not straightforward but as we were able to continue ventilation there was no need for concern. Saturations were maintained throughout. The trachea was successfully intubated and the procedure continued normally.

Discussion

Super-morbidly obese patients with co existing obstructive sleep apnoea (OSA) are a significant airway risk. They desaturate rapidly during apnoea and take a long time to recover from the hypoxemia. So, in our case the plan was to continue ventilation whilst securing endotracheal intubation to avoid possible desaturation and subsequent hypoxemia. Total Track VLM has been designed for this purpose. The Kings airway team were not experts with the TotalTrack device but all involved in this case were impressed at the ability to ventilate continuously whilst the ETT was passed. This enabled the patient to remain fully saturated throughout the predicted difficult intubation. The team concluded that this case may have been far more challenging using alternative techniques.

A group in Spain have recently published a case series of 100 uses of the TotalTrack VLM. The patients were not selected for known airway issues. The mean thyromental distance was 5.9cm, sternomental distance 14.5cm and interincisor distance 4.4. Eight patients had a BMI in excess of 35 and seven patients had a previous history of difficult airway management. They concluded that;

“In all our study patients, a full view of the glottis could be obtained and adequate ventilation established. Securing the airway, once one is expert, takes approximately 40 seconds. These findings suggest that the TotalTrack™ is a promising device for airway management and has the potential to become a preferred device in the emergency situation of a difficult direct laryngoscopy.”

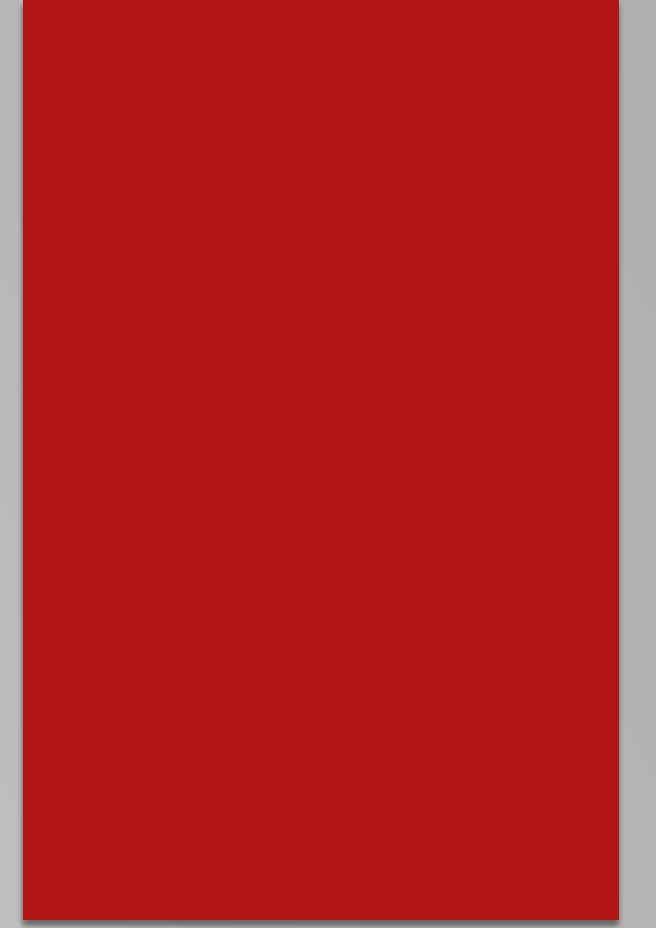
References

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- ▶ Use of the TotalTrack VLM in a patient with a predicted difficult airway.
- ▶ Patient was centrally obese with a BMI of 58 and symptomatic OSA.
- ▶ She was Mallampati 3 with a short neck, large tongue and limited neck extension
- ▶ Ventilation and oxygenation was maintained using the device whilst the ETT was successfully passed
- ▶ The case demonstrated the potential usefulness of the TotalTrack VLM