TotalTrack video intubating laryngeal mask in superobese patients.

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BACKGROUND OF STUDY:

Superobesity is met when BMI exceeds 50 kg/m2. Superobesity is one of the risk factors influencing probability of difficult mask ventilation and difficult intubation. TotalTrack video intubating laryngeal mask (MedCom Flow, Spain) is a new device which enables ventilation (and oxygenation) patient during attempts of visualisation of entrance to larynx and intubation. This is especially important in superobese patients, who desaturate very fast because of small oxygen reserves. In superobese patients comparing to obese patients hypoxia was more often met during intubation regardless of used and more teeth damage comparing to morbidly obese 6% vs 1% [1]. In prospective observation study we decided to compare clinical use of TotalTrack video intubating laryngeal mask comparing with standard Macintosh blade laryngoscope (MCL) in superobese patients.

METHODS:

After obtaining institutional ethic committee of Medical University of Lodz approval (RNN/363/13/KB date 21.05.2014 head: prof. P. Polakowski) 24 superobese patients were enrolled into observation study and divided into two subgroups: TotalTrack and MCL (BMI 55.62 ± 4.54 vs 53,8 ±3,5 respectively). We obtained written informed consent from the study participants. Anaesthesia management was based on guidelines of European Society of Peri-Operative Care of Obese Patient (ESPCOP, www.espcop.org). Time to laryngeal mask placement was recorded, leak pressure of ventilation, visualisation of entrance to larynx in Cormack-Lehane scale (CL), ease of intubation and signs of blood on the mask after removal (blood streams). Leak pressure was measured following method: oxygen flow 3 l/min and closing valve with increasing pressure up to hearing of air leak around the mask.

Fig.1.Isertion on TotalTrack

Fig.2. Ventilation using TotalTrack

Fig.3. Visualisation of entrance to larynx

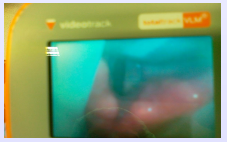

Fig.4. Intubation through TotalTrack

Fig.5. Happy bariatric surgeon

Parameter	TotalTrack group	MCL group
Insertion time (s)	9 ± 3	7,7 ±3,6
Effective ventilation (n)	11/12	NA
Effective intubation (n)	12/12	12/12
Laryngeal view in CL (1/2/3/4)	12/0/0/0	5/4/3/0
Leak pressure (cm H_2O)	21 ± 6	NA
Blood treams on mask removal (n)	1/12	NA

Table.1. Results of observation

RESULTS:

In both groups all patients were intubated in first attempt, but in MCL group CL was no 2 in 4, and no 3 in 3 cases. In TotalTrack group 11/12 cases adequate ventilation was achieved. CL was 1 in all cases. In one case ventilation was not effective because of persistent leak but the fast intubation through TotalTrack was possible. No episodes of hypoxia was observed during using of TotalTrack and MCL.

CONCLUSION:

TotalTrack video intubating laryngeal mask is a device that allows for better visualisation of larynx comparing to standard Macintosh blade laryngoscope.

- TotalTrack is effective for ventilation and intubation of superobese patients;
- It can be useful in patients who desaturate fast (superobese) during intubation attempts;
- It provides very good visualisation of entrance to larynx in superobese patients;