

A comparison of the Truview EVO2™ blade with the Macintosh blade for tracheal intubation

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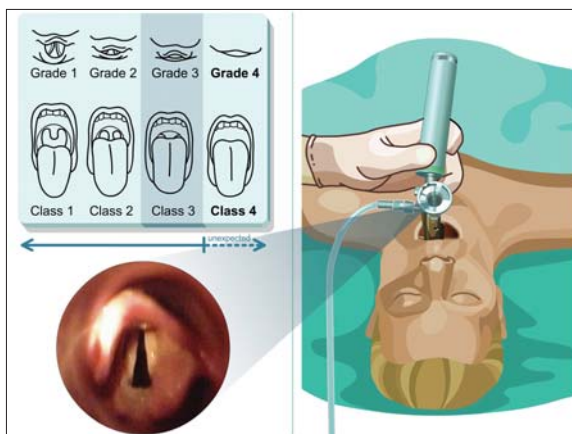


Background and Goals

The optical system of new Truview EVO2™ blade (Truphatek Israel) offers the possible advantage of improved laryngeal view. The goal of this study was to compare the use of Truview EVO2™ and Macintosh blades in humans and in order to assess the effectiveness of the Truview EVO2™ in providing glottic exposure.

Materials and Methods

We recruited 70 ASA I and II patients to our randomized controlled trial. Group M (n=35) had tracheal intubation performed using the Macintosh blade (size 3). Group T (n=35) was intubated using the Truview EVO2™ blade. We recorded the following: Mallampati score, thromental distance (cm), maximum mouth opening (cm), best laryngeal view (assessed by Cormack and Lehane grade), time taken for successful tracheal intubation, grading of ease of intubation (I: difficult, II: common, III: easy), hemodynamics and signs of trauma (24 hours after the intubation).



Result

The Cormack and Lehane grade was significantly better in Group T than Group M: Table 1

Cormack & Lahane Grade	I	II	III	IV
Group T (Truview EVO)	30/35	2/35	2/35	1/35
Group M (Macintosh)	16/35	11/35	8/35	0/35

P=0.002

The grading of ease of intubation was significantly improved in Group T than Group M: Table 2

Ease of intubation	I = Difficult	II = Common	III = Easy
Group T (Truview EVO)	0/35	2/35	33/35
Group M (Macintosh)	7/35	7/35	21/35

P=0.003

Group T had longer intubation time than Group M: Table 3

Time to Intubation	Mean Time
Group T (Truview EVO)	18±7 sec.
Group M (Macintosh)	14±6 sec.

P=0.016

After the intubation there was one case of visible bloodstain on the blade in the two groups respectively.

There was no difference in hemodynamics between two groups.

Conclusions

Compared to the Macintosh blade,

- The Truview EVO2™ blade significantly improved glottic exposure (patients with Mallampati score II, III), suggesting that Truview EVO2™ may facilitate glottic exposure in difficult airway;
- Use of Truview EVO2™ blade was easier to intubate
- No more trauma.

