Assessment of airway the MOUTH concept

Sir,

We report a simple way of assessment of airway. Difficult tracheal intubation/laryngoscopy, which is defined as successful intubation requiring more than three attempts or taking longer than 10 minutes, occurs in 1.1 to 8.5% of patients.[1] The incidence of failed tracheal intubation occurs at an incidence of 0.01 to 0.03%. Assessment of difficult airway forms an essential part of preoperative assessment. Difficult intubation is the second most frequent primary event leading to anesthesia malpractice claims. It is responsible for 6.4% of 4,459 claims in the closed claims database.[2] A significant proportion of claims resulting from difficult airway events had virtually no preoperative assessment. A preoperative airway history was not conducted in 25% of these claims.[3] There are numerous pneumonic and schedules described for airway assessment, yet there are misses. The different scoring systems are as follows. There are scores like LEMON, MOANS, RODS, 4 Ds, LMMAP, etc.[4,5] The LEMON score is the most popular.

The concepts and their explanations are: MOANS (Mask seal, Obesity/obstruction, Age 55, No teeth, Stiff lungs); RODS (Restricted oral opening, Obstruction, Disrupted or distorted, Stiff lungs); LMMAP (L Look for external, M Mallampatti, M Measurements, A Atlanto occipital extension, P Pathology of teeth oral cavity, etc.); 4 D concept [Dentition (prominent upper incisors, receding chin), Distortion (edema, blood, vomits, tumor, infection), Disproportion (short chintolarynx distance, bull neck, large tongue, small mouth), Dysmobility (TMJ and cervical spine)]. The most popular LEMON concept is: L (Look externally (facial trauma, large incisors, beard or moustache, large tongue); E (Evaluate the 332 rule (incisor distance3 finger breadths, hyoidmental distance3 finger breadths, thyroid cartilagetomandible distance2 finger breadths); M Mallampati (Mallampati score >3); O (Obstruction presence of any condition like epiglottitis, peritonsillar abscess, trauma); N (Neck mobility (limited neck mobility). These scores and pneumonic are not efficacious because they either miss important clinical findings or are difficult to remember.

We describe a different schedule called MOUTH: M (Mallampatti classification, Mandibular space); O (Obesity, Openings mouth and nose); U (Upper lip bite test); T (Teeth); H (Head and neck movements). The advantages of this pneumonic are that the word mouth itself is part of the airway assessment. Each and every letter corresponds to a clear cut *test*. This is probably the only system where the upper lip bite test is included. Concepts like MOANS, RODS are incomplete and difficult to remember. The mandibular space covers the problems of anterior larynx and diseases of tongue. The adequate opening of mouth rules out restrictions in temporomandibular joint mobility. Teeth include buck teeth, loose and artificial dentures. We suggest that the MOUTH concept of airway assessment could provide a more complete airway assessment.

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