

CURARES LOW DOSE ET MASQUE LARYNGÉ

Département d'Anesthésie Réanimation Douleur
Institut Curie

Réunion annuelle des CLCC
Institut Bergonié. Bordeaux

22 mai 2015

A. Ghimouz, P. Goater



institutCurie

'Patients who sing need to be relaxed'-neuromuscular blockade as a solution for air-leaking during intermittent positive pressure ventilation using LMA

- 12 patients ASA 1-2, 80 ± 14 kg
- Rocuronium 0,2 mg/kg + Sevoflurane + remifentanil + Masque Laryngé + BIS
- Après 55 ± 25 min : Bruit + fuites + PIP > 20 cmH₂O, train de 4 > 90% + BIS < 58
- Administration de propofol + majoration du remifentanil -> BIS < 35 : aucune efficacité
- Administration de Rocuronium 0,15 mg/kg = ventilation normale

Sudden vocal cord closure during general anesthesia using remifentanyl

- 3 cas cliniques sous ML
- Induction : Propofol + Remifentanyl
- Entretien : Remifentanyl + Sevoflurane
- Fibroscopie: fermeture glottique
- Relaxation de la glotte sous suxamethonium

Remifentanyl ?

CAS CLINIQUE

- 2 patientes 56 et 62 kg ASA, chirurgie mammaire
- AG = Sufentanil + propofol + sevoflurane + N₂O-O₂
- PeTCO₂ = 30-35 mmH₂O + PIP = 12-14 cmH₂O
- Après 45 min : Bruit + fuites + PIP > 24 cmH₂O + PeTCO₂ = 0
- Pose Entropy < 50
- GlideScope après retrait du ML = glotte en adduction
- Administration d'atracurium 0,2 mg/kg = ouverture de la glotte
- Repose du ML + Ventilation normale
- TOF = 3 réponses

Adducted vocal cords relieved by low-dose neuromuscular blocking drug: a cause of impaired mechanical ventilation when using a laryngeal mask airway. Two photographically documented cases

Figure 1: Adducted vocal cords as observed using Glidescope in a patient with critical intraoperative impairment of mechanical ventilation



Figure 2: Abducted vocal cords following injection of low-dose neuromuscular blocking agent.



MASQUE LARYNGÉ

ETUDE PRELIMINAIRE

- 23 PATIENTS
- 16 coelioscopies diagnostiques ou bilan de stérilité: toutes sous curare
- 6 Patients en VS: 3 sous suxamethonium



Br J Anaesth. 1983; 55: 801-5

The laryngeal mask--a new concept in airway management.

A.I.J Brain

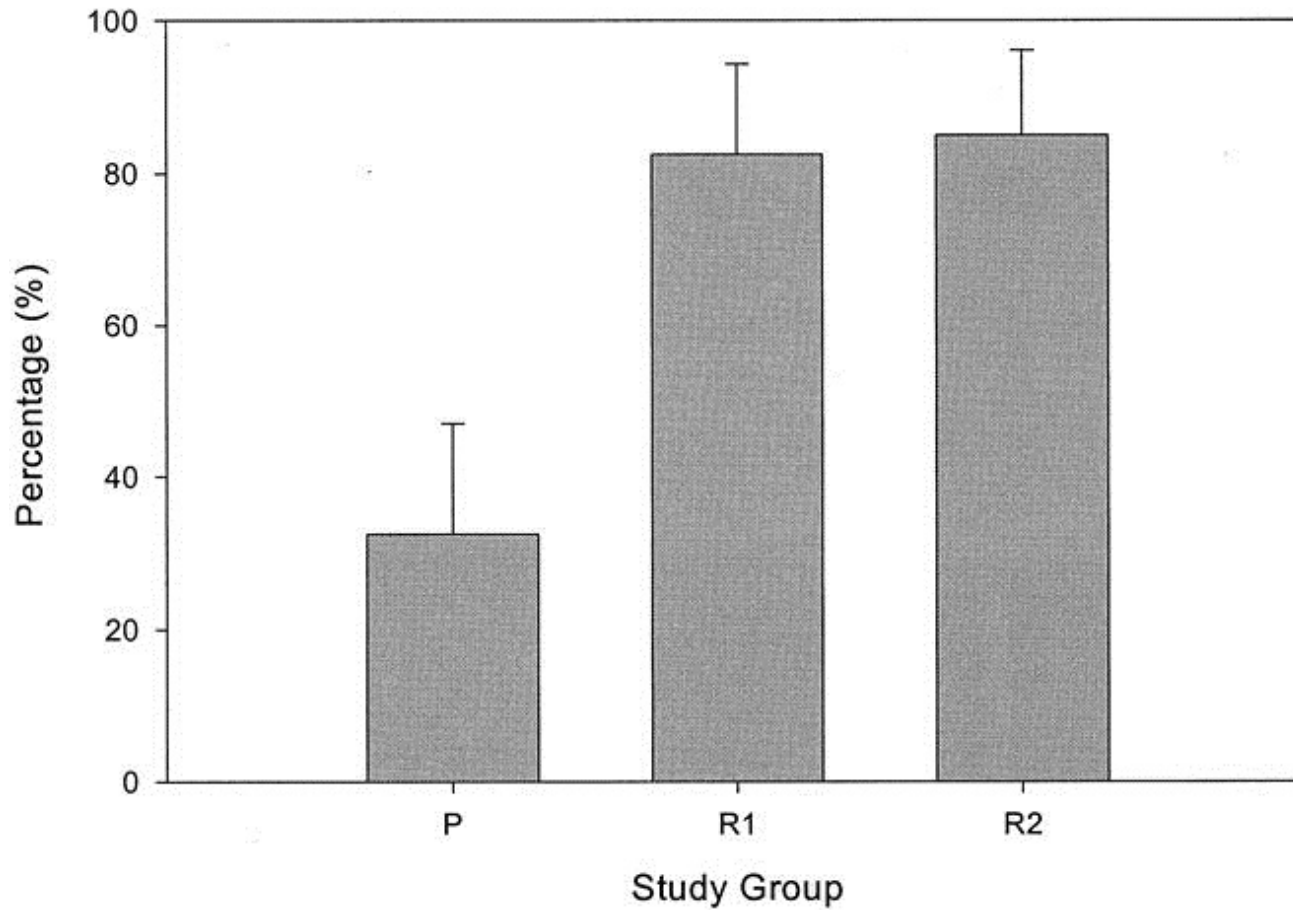
The incidence of aspiration associated with the laryngeal mask airway: a meta-analysis of published literature

- 547 publications
- 3 inhalation pour 12 901 patients
- Incidence d'inhalation = 2 pour 10 000
- Identique au masque facial et à l'intubation trachéale

Survey of laryngeal mask airway usage in 11,910 patients: safety and efficacy for conventional and nonconventional usage

- 39 824 patients sous anesthésie générale, 11 910 (30%) sous ML
- 44 % en ventilation contrôlée
- 2222 patients (19%) opérés de chirurgie intra-abdominale.
- 579 (4%) pour une chirurgie > 2 h
- 18 cas de difficultés ventilatoires (prédictives)

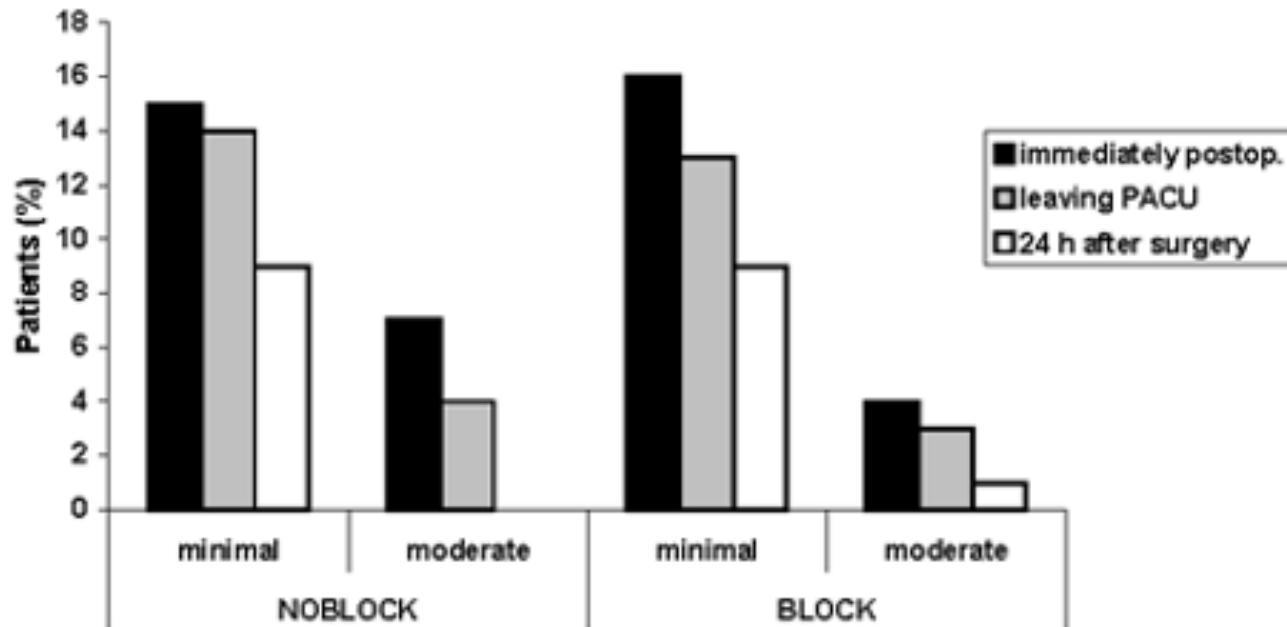
The Use of Remifentanyl to Facilitate the Insertion of the Laryngeal Mask Airway



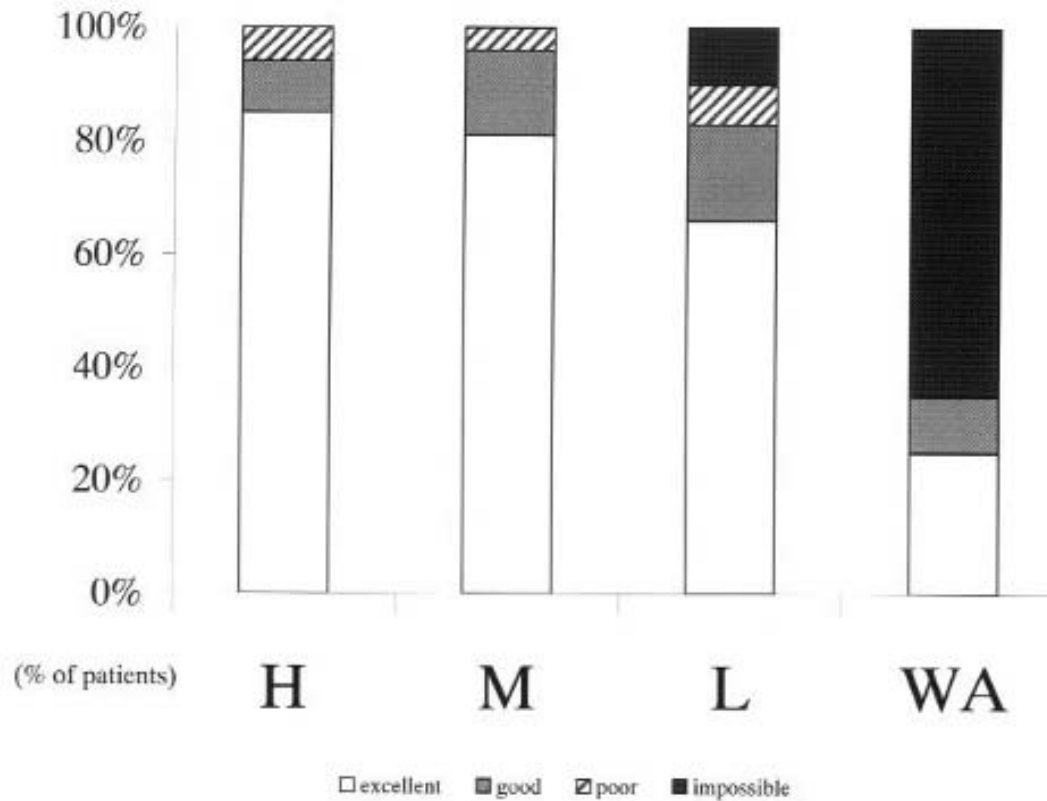
Neuromuscular blockade does not change the incidence or severity of pharyngolaryngeal discomfort after LMA anesthesia.

Figure a

130 patients



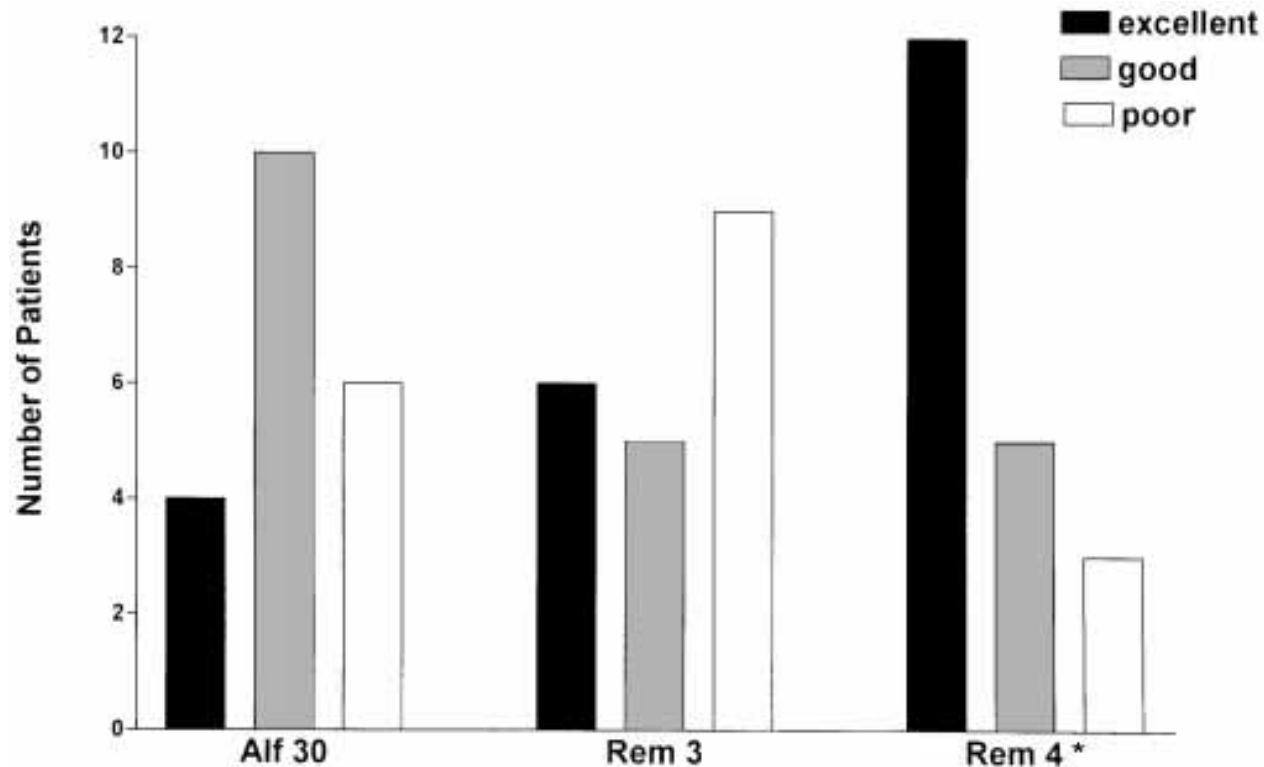
Muscle relaxation and increasing doses of propofol improve intubating conditions.



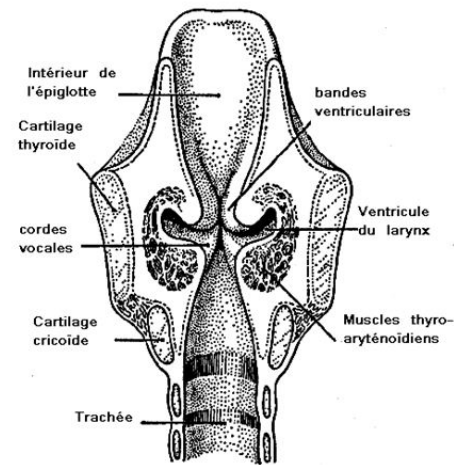
Can J Anaesth. 2003; 50: 121-6
Lieutaud T et al

Tracheal intubation without the use of muscle relaxants: remifentanil or alfentanil in combination with propofol

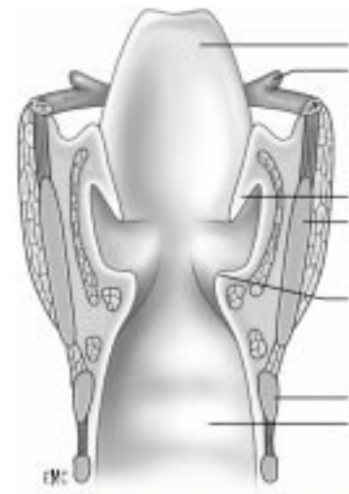
N=60



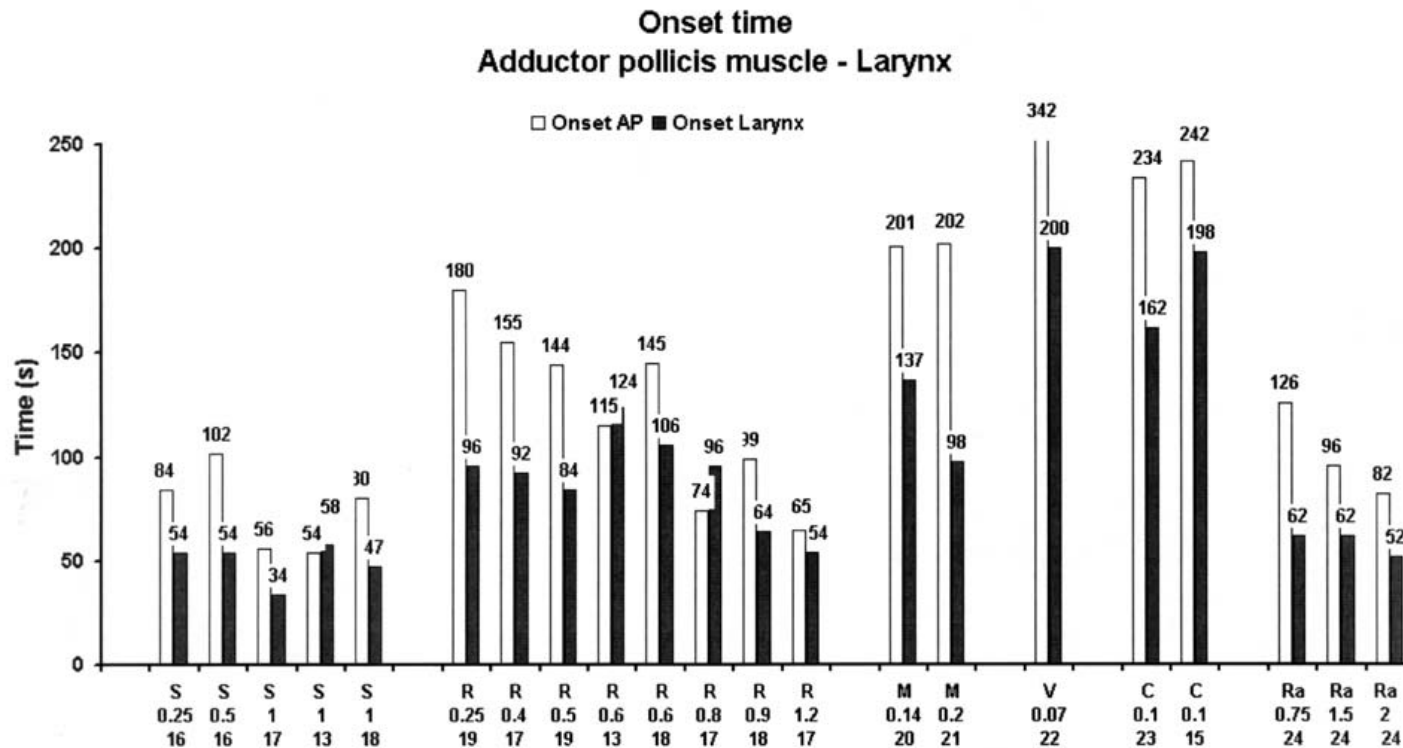
The etiology and treatment of laryngeal spasm



Adduction glottique = effet Bernoulli

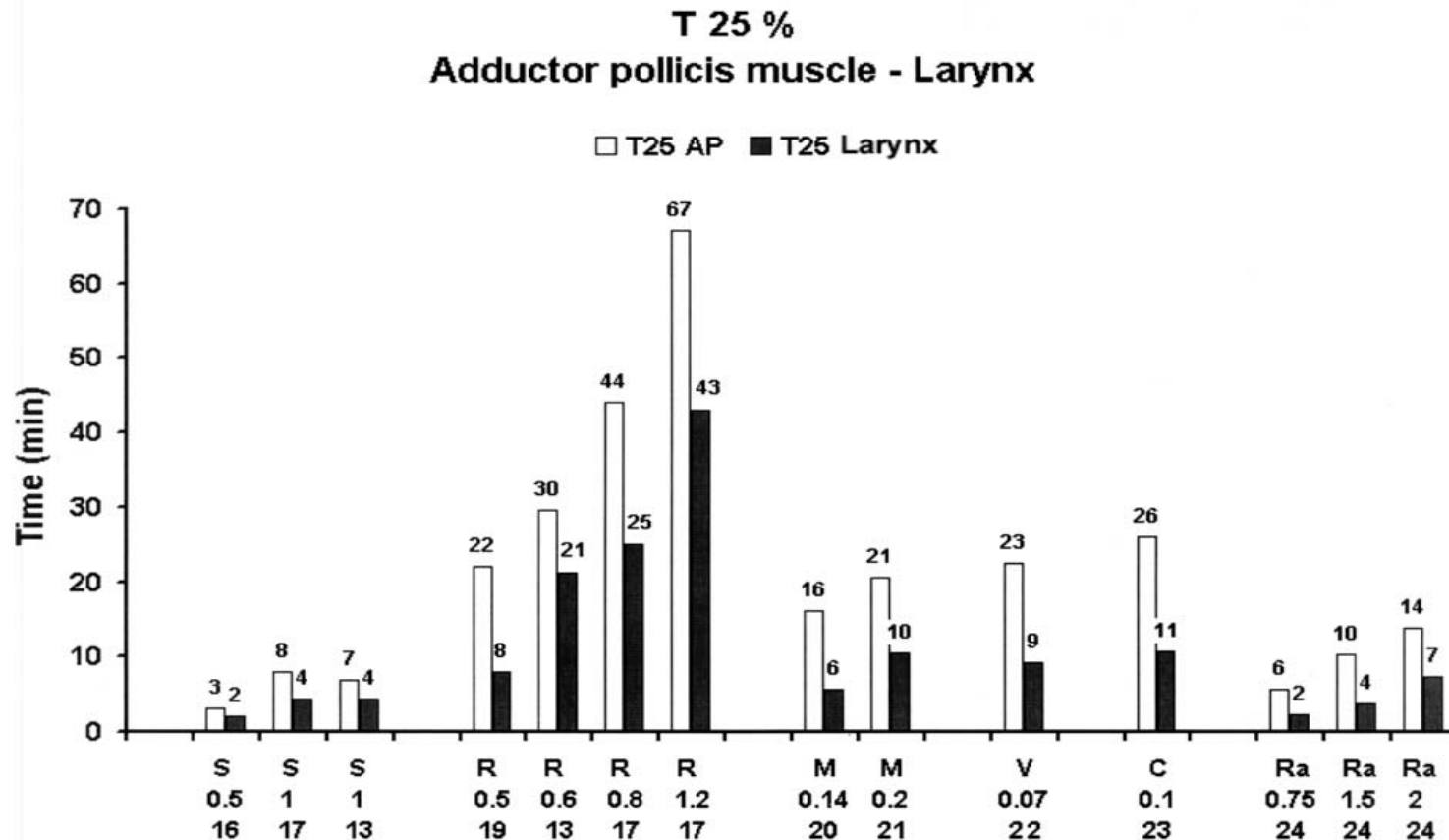


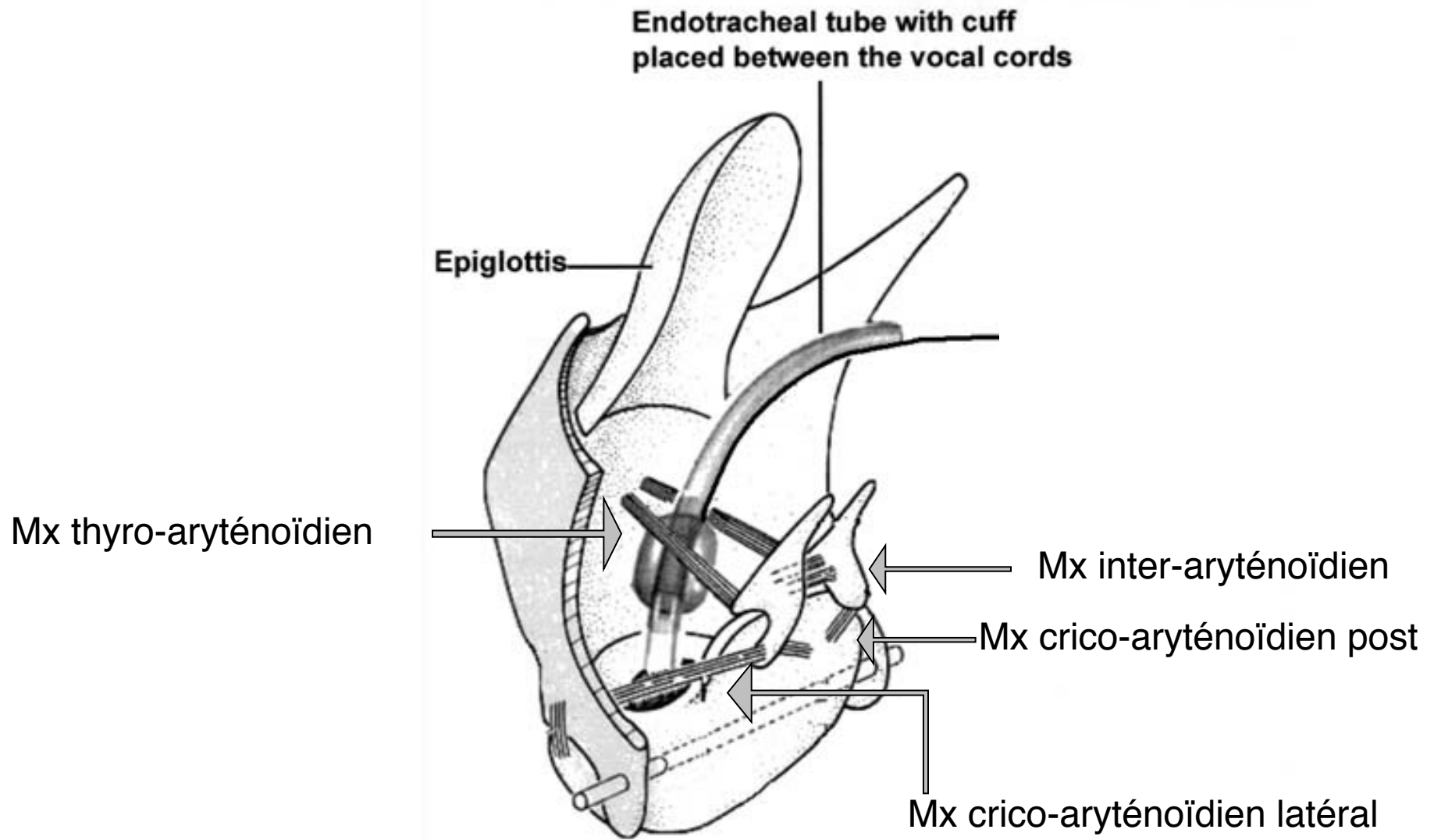
Neuromuscular blockade at the larynx, the diaphragm and the corrugator supercilii muscle: a review



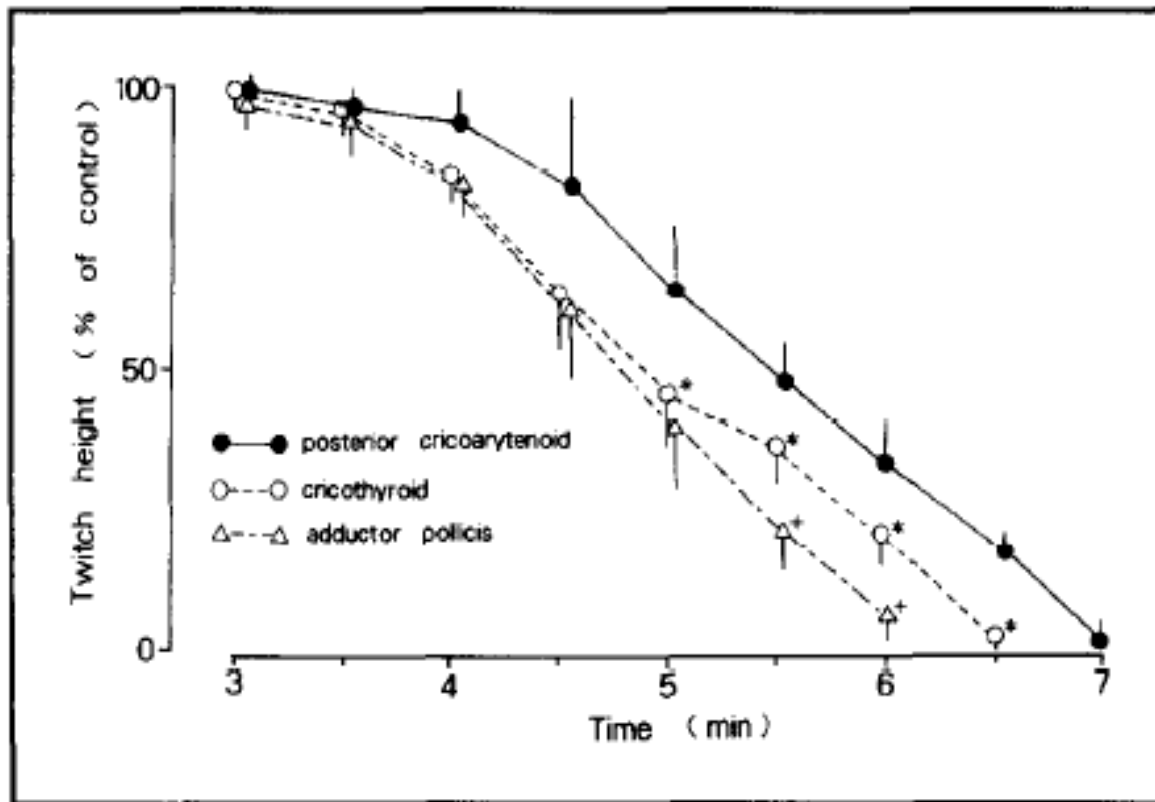
C = cisatracurium; M = mivacurium; R = rocuronium; Ra = rapacuronium; S = succinylcholine; V = vecuronium.

Neuromuscular blockade at the larynx, the diaphragm and the corrugator supercilii muscle: a review





Vecuronium neuromuscular blockade at the cricothyroid and posterior cricoarytenoid muscles of the larynx and at the adductor pollicis muscle in humans



CONCLUSION

- Effet Bernoulli
- Utiliser une faible dose de curare permet de rétablir une ventilation normale lors de l'utilisation du masque laryngé
- Cette faible dose ne permet l'intubation