Anesthesiology
67:861, 1987

The Correct Position of the Head and Neck for Rapid Sequence Induction

To the Editor:—Goldberg[1] raised a very important question about the proper position of the head and neck for rapid sequence induction in a patient with a "full stomach." Should it be full extension of the head and neck, as Sellick[2] described, or can it be sniffing position (where the neck is flexed forward and the head is extended backward)?

When Sellick introduced the manuever of cricoid pressure, he suggested that the patient lie supine with a slight head-down tilt with the head and neck fully extended. This position increases the anterior convexity of the cervical spine, stretches the esophagus, and prevents its lateral displacement when pressure is applied to the cricoid.

The lateral x-ray of the head and neck of a normal subject in either sniffing position[3] or full head and neck extension[2] shows that the anterior convexity of the cervical spine is about the same. This implies that extension of the head plays a major role in forming the anterior convexity of the cervical spine. The esophagus commences in the median line, at the upper border of the cricoid cartilage, opposite the intervertebral disk between the fifth and sixth cervical vertebrae.[4,5] The muscular coat of the esophagus is composed of external longitudinal and internal circular fibers. The longitudinal fibers are attached to the posterior surface of the cricoid cartilage and the fibers of the inferior constrictor. The origin of the esophagus is also the first of four constrictions. This is produced by the tonic contraction of a specialized band of the circumferential fibers of the lowermost portion of the inferior pharyngeal constrictor muscle, called the cricopharyngeus muscle.

As the result of this anatomical relation, the esophagus is fixed to the cricoid cartilage ring, and is always posterior to it. Thus, we need not worry about lateral displacement of the esophagus, which is also stretched when the head is extended (the larynx moves cephalad when the head is extended), and the esophagus should be occluded when pressure is applied on the cricoid cartilage against the cervical spine.

Therefore, I believe that the correct position for rapid sequence induction is the sniffing position. This position will both facilitate endotracheal intubation and provide all that Sellick wanted to achieve.

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REFERENCES

1. Goldberg JS: What is the correct position of the neck for rapid sequence induction in a patient with a full stomach? ANESTHESIOLOGY 66:558, 1987
2. Sellick BA: Cricoid pressure to control regurgitation of stomach contents during induction of anesthesia. Lancet 2:404–406, 1961
3. Dripps RD, Eckenhoff JE, Vandam LD: Intubation of the trachea, Introduction to Anesthesia, 5th edition. Philadelphia, WB Saunders, 1977, pp 216–230.
4. Netter FH: Digestive system Part 1, The Ciba Collection of Medical Illustrations, Vol. 3. New York, Ciba Pharmaceutical Company, 1971, pp 17–23
5. Gray H: The organs of digestion, the esophagus, Anatomy, Descriptive and Surgical, 1901 edition. Philadelphia, Running Press, 1974, pp 891–893

(Accepted for publication July 12, 1987.)

Anesthesiology
67:861–862, 1987

Ketamine Addiction

To the Editor:—There is a potential of developing tolerance to ketamine, but reports of ketamine addiction or dependence are few. We would like to report the case of an individual who has been taking ketamine for 5 yr and has developed dependence to the drug.

A 31-yr-old white male voluntarily registered in the detoxification program for chemical dependence. While waiting in the outpatient clinic, he chanced a last "farewell" injection of 300 mg ketamine, im, before being admitted to the program. Loss of consciousness in a public area promptly attracted the attention of hospital personnel. A half-empty, 10-ml ketamine bottle was found in his pocket, and an anesthesiologist was consulted concerning emergency treatment of ketamine overdose. The patient regained consciousness and related the following story.