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We use this protocol and it's working

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Morphometry of thyroid cartilage, epiglottis and pyriform fossa

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ABSTRACT

Larynx is a complex organ of voice production and respiration, which is supported by a series of cartilages, membranes, muscles and joints. They bring about movement of vocal cords with a considerable range of mobility. Apart from the phonating mechanism, it also serves as a sphincter or watch dog of the lower respiratory tract. The knowledge of laryngeal anatomy is important to various professionals such as phoniatricians, speech therapists, oncologists and otorhinolaryngologists. Understanding the laryngeal framework is mandatory in constructing biomechanical models for voice disorders that requires accurate
laryngeal dimensions. The data of the dimensions of thyroid cartilage, epiglottis and piriform fossa are
essential to the anesthesiologists during the laryngoscopy and endotracheal intubation. However, they are scarce in the scientific literature. There are not many studies available about the measurements of thyroid cartilage, piriform fossa and epiglottis in our sample population.

ATTACHMENTS

larynx protocols.docx

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Keywords: Piriform Fossa, Thyroid Cartilage, Epiglottis

PROTOCOL REFERENCES

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GUIDELINES

This study was approved by the ethics committee of our institution (Approval Committee Name: Institutional Ethics Committee, Kasturba Medical College, Mangalore, Approval Number: IEC KMC MLR: 02/2022/61, dated 17.02.2022)

MATERIALS

Study setting: Department of Anatomy, Kasturba Medical College, Mangalore
Study participants:
Human embalmed cadavers
Inclusion criteria: Adult human embalmed cadavers
Study duration: 3 months
Sample size: 22
Sampling method: The sample size is similar to the earlier study performed by Eckel et al. (1994).
Data collection methodology:
A digital Vernier caliper (Mitutoyo, Japan, 0-150 mm 500-196) will be used to perform the measurements. Height, width and thickness of the thyroid cartilage, epiglottis and piriform fossa will be measured. The measurements will be taken at their maximum diameter and for the thyroid cartilage and piriform fossa, the readings will be taken separately over the right and left sides.
Data analysis: The data will be presented as mean ± standard deviation and the side-based comparison of the right and left sides will be performed by using the paired 't' test. The recent version of SPSS (version 27) software will be utilized for the statistical analysis. The gender-based comparison and age wise segregation will not be performed in the present study.

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1 The goal of this study will be to obtain the dimensions of thyroid cartilage, epiglottis and piriform sinus in embalmed cadavers of Indian sample population.