

ROLE OF ENDOSCOPIC ULTRASONOGRAPHY VERSUS COMPUTED TOMOGRAPHY IN THE ASSESSMENT OF OESOPHAGEAL CARCINOMA

ESSAY

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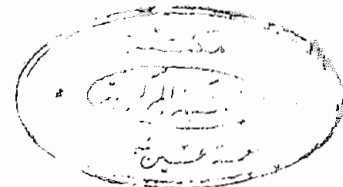
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا

إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

سورة البقرة .. آية ٣٢



TO...

MY FAMILY

MY FAMILY

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INTRODUCTION AND AIM OF WORK



INTRODUCTION AND AIM OF WORK

Oesophageal carcinoma is the most common tumor of the oesophagus (*Skinner, and De Meesters 1976*).

Histologically, oesophageal carcinomas are squamous cell carcinoma or adenocarcinoma (*Sutton, 1993*).

There are wide geographical variations in its incidence. High risk population groups include patients who are both heavy drinkers and smokers, those with achalasia or other causes of long-term oesophageal obstruction (*Dowlathahi, et al., 1978*).

Over all, significant improvement in the management of this disease depend upon further successful application of early case findings techniques (*Skinner and De Meester, 1976*).

The usual sequence of investigation of patients with suspected oesophageal carcinoma is barium swallow, chest radiography, oesophagoscopy with biopsy and CT.

The aim of this work is to evaluate the role of endoscopic ultrasonography (endosonography) versus CT in the assessment of oesophageal carcinoma.

ANATOMICAL CONSIDERATIONS

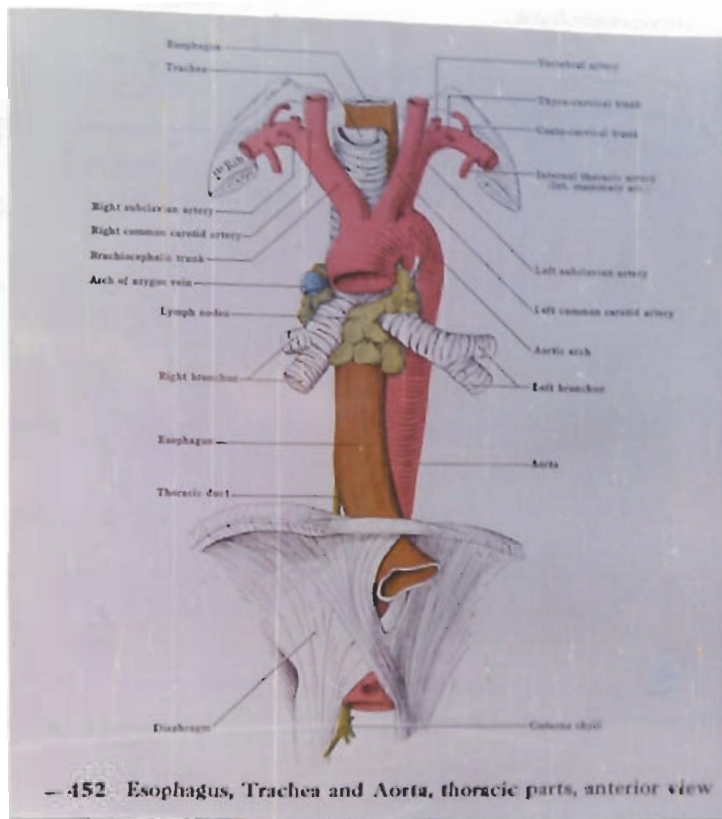


Fig.(1): Quoted from Grant's Atlas of Anatomy, (1972).

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ANATOMY OF THE OESOPHAGUS

Growth anatomy:

The oesophagus is a muscular tube, about 25 cm (10 inches) long, connecting the pharynx to the stomach (fig. 1).

It begins in the neck at the caudal border of the cricoid cartilage, opposite the sixth cervical vertebra, where it is continuous with the pharynx. It descends largely anterior to the vertebral column, through the superior and posterior parts of the mediastinum, pierces the diaphragm level with the tenth thoracic vertebra, and ends at the cardiac orifice of the stomach at the level of the eleventh thoracic vertebra.

The general direction of the oesophagus is vertical, but presents two slight curves. At its commencement it is median, but it inclines slightly to the left side as far as the root of the neck, gradually passes again to the median plane, at the level of the 5th thoracic vertebra, and again, at the seventh, deviates to the left and then turns anteriorly to the oesophageal opening in the diaphragm. The oesophagus also presents anteroposterior flexures corresponding to the curvatures of cervical and thoracic parts of the vertebral column.

It is the narrowest region of the alimentary tract except for the vermiform appendix (*Gray, 1989*).

Sites of normal constrictions:

- (a) It is constricted at its commencement, 15 cm (6 in) from the incisor.
- (b) Where it is crossed by the aortic arch, 22.5 cm (9 in) from the incisor teeth.
- (c) Where it is crossed by left principal bronchus, 27.5 cm (11 inches) from the incisors.
- (d) Where it pierces the diaphragm, 40 cm (16 in) from the incisors.

The sites of these constrictions are important clinically in connection with the passage of instruments along the oesophagus (*Gray, 1989*).

* Relations:

The cervical oesophagus:

It has the following relations:

- Anteriorly lies the trachea, to the posterior membranous wall of which it is attached by loose connective tissue, the recurrent laryngeal nerves ascend, one on each side, in, or slightly in front of, the groove between the trachea and oesophagus.
- Posteriorly, it adjoins the vertebral column, the longus colli and the prevertebral layer of the deep cervical fascia.
- Laterally, on each side, lie the corresponding common carotid artery and the posterior part of the lobe of the thyroid gland; in the lower part of the neck. Where the oesophagus projects to the left side, it has a closer relation to the carotid sheath and the thyroid gland than on the right side. The thoracic duct ascends for a short distance along left edge of the oesophagus (*Gray, 1989*).