

CLINICALLY ORIENTED MORPHOMETRIC STUDY
OF CERVICAL VERTEBRA IN INDIAN POPULATION

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Key words: cervical vertebra, decompression, internal
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Background. The anatomical dimensions of the cervical vertebrae have got neurosurgical implications.

Aim. The objective of the present study was to study the dimensions of the various parts of the cervical vertebrae (C1–C7) in Indian population.

Material and Methods. The present study included 237 cervical vertebrae, which included C1–C7. The dimensions of the different parts of the vertebrae like body, pedicle, spinous process, laminae and articular facets were measured. The age and gender of the vertebrae were unknown.

Results and Discussion. The present study has provided important data about the dimensions of cervical vertebrae. It was observed that the dimensions of the vertebral body was more for the lower cervical vertebra. The pedicle was larger in dimension for the C3 vertebra. The lamina was increasing in dimensions from C3 to C7. The length of the spinous process was highest for the vertebra prominens. The superior and inferior articular facets were decreasing in dimension towards the lower neck.

Conclusions. We believe that the data of the present study are important to the neurosurgical literature. The data will be enlightening to the operating spine surgeon during the procedures like internal fixation of the fracture vertebra and decompression procedure for the cervical spondylosis. It was observed that the racial variations seemed to exist and the implants should be devised as per the Indian data for the Indian patients.

OPTIMIZATION OF LAPAROSCOPIC ACCESSES
FOR REDUCTION OF POSTOPERATIVE WOUND COMPLICATIONS

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Key words: cholecystectomy, laparoscopy, anatomy,
complications

Aim. To identify surgical accesses for laparoscopic cholecystectomy which are associated with less risk of postoperative wound complications.

Material and Methods. The performed analysis of 180 clinical cases of the wound healing process

after laparoscopic cholecystectomy showed that there are certain areas on the abdominal wall which are safer in terms of the development of complications. The anatomical features of epigastric and paraumbilical regions which are most commonly used for trocar accesses differ. One of the significant differences is the density of lymphatic vessels in these anatomical zones. Infiltrates and suppuration, and subsequently postoperative hernias are more often observed in paraumbilical region.

Results and Discussion. Analysis of infectious complications in the field of surgical interventions showed that suppuration occurred in 11.7% patients (n=11) who underwent perianopic access for laparoscopic cholecystectomy in a container (total 94 patients), and only in 4.7% patients (n=4) after epigastric laparoscopic accesses (total 86 patients).

Conclusions. The epigastric region is anatomically more preferable for laparoscopic surgical access in terms of lower risk of postoperative wound complications.

ANATOMICAL MODELING OF SPONTANEOUS ESOPHAGEAL RUPTURE

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Key words: esophagus, rupture, spontaneous, pressure,
animals

Background. Spontaneous rupture of the esophagus (SRE) is a disease with an unfavorable prognosis of life that occurs in the unchanged wall of the esophagus with an increase in intraluminal pressure caused by vomiting.

Aim. Create an anatomical model of the SRE with a view to studying its mechanism.

Material and Methods. The simulation was performed on pigs weighing 18–20 kg. The first group—dead pigs were isolated by the removal of organs by the method of R. Virchow, then a clamp was placed on the gatekeeper, sealing the gastric outlet; second group — the pressure of the esophageal wall rupture was measured in dead animals without extracting the organocomplex; third group — living animals under the anesthesia of endotracheal analgesia.

For comparison, the pressure in the lumen of the esophagus and stomach was measured, which occurs with a gag reflex during diagnostic esophagogastros- copy (20 patients).