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PO-013 - (23996) - MORPHOLOGICAL VARIATIONS OF THE LUNGS IN A SELECT SOUTH AFRICAN POPULATION

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Anatomical variations of the lungs are clinically significant, particularly in thoracic surgery and radiology. However, data on lung morphology in South African populations remain limited. This study aimed to investigate the morphological variations in lung lobes, fissures, and hilar structures within a select South African cadaveric sample.

Thirty-six adult embalmed cadavers (n = 72 lungs) were dissected at the University of KwaZulu-Natal. Ethical approval was obtained (BREC/00005966/2023). Each lung was examined for the number of lobes, fissure completeness (graded using the Craig and Walker classification), and hilar arrangement. Data were analyzed using descriptive statistics and chi-square tests to assess the significance of observed variations.

Variations from standard lung anatomy were identified, including 16.1% of right lungs with only two lobes and 5.9% of left lungs with three lobes. The oblique fissure was complete in 71.0% of right and 91.2% of left lungs. Accessory fissures were present in 3.1% of specimens. Fourteen distinct hilar arrangements were documented in right lungs and ten in left lungs, indicating marked structural diversity.

This study demonstrates considerable anatomical variation in lung morphology in a South African sample, underscoring the importance of population-specific data. Such knowledge is vital for improving surgical planning, minimizing intraoperative complications, and enhancing anatomical education. These findings support the integration of regional anatomical variation into clinical and academic settings

Palavras-chave : Lung morphology, Anatomical variation, Cadaveric study