



KEY WORDS

- ✓ Compensatory lung growth
- ✓ Lung resections
- ✓ Early stage
- ✓ Clinical
- ✓ Pathology

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INVESTIGATION OF EARLY STAGE CLINICAL, LABORATORY, RADIOLOGICAL AND PATHOLOGICAL FINDINGS OF COMPENSATORY LUNG GROWTH AFTER LUNG RESECTIONS: AN EXPERIMENTAL STUDY

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THESIS ABSTRACT

The findings of compensatory lung growth (TEAB) in the remaining lung after different lung resections were compared. Fifteen rabbits underwent left cranial lobectomy in group 1 (GRI), left cranial and middle bilobectomy in group 2 (GRII), and left pneumonectomy in group 3 (GRIII). Pre- and postoperatively, clinical, radiological examinations and laboratory analyses were performed on the 1st, 7th and 30th days. The remaining lungs after sacrification were examined pathologically. Statistics were applied to the data. Severe mediastinal shift was detected in GRIII.

New alveolar septum, respiratory bronchiole branches, intraacinar airways and alveolar capillaries were more in GRIII. There was a significance between GRI and GRIII for mediastinal shift on day 30 (p=0.001). A significant difference was found between GRIII and other groups for the increase in intraacinar airways (p=0.005) and respiratory bronchiole proliferation (p=0.004). A significant difference was found between GRI and GRIII (p=0.003) and GRII and GRIII (p=0.032) for SF-A immunoexpression. In conclusion, it is observed that the findings of TEAB become more apparent as the lung tissue loss in lung resection (lobectomy, bilobectomy and pneumonectomy) increases.

APPLICATION AREAS OF THE THESIS RESULTS

It is thought that the data obtained in this thesis study will contribute to clinical research on compensatory lung growth after lung resections in veterinary surgery.

ACADEMIC ACTIVITIES

Dolu, C., Özmen, Ö., Bayram, A. S., Salcı, H., (2024). Farklı Akciğer Rezeksiyonları Sonrası Telafi Edici Akciğer Büyümesinin Erken Dönem Klinik, Laboratuvar, Radyolojik ve Histopatolojik Bulgularının Değerlendirilmesi. XVIII. Ulusal ve IV. Uluslararası Veteriner Cerrahi Kongresi, Antalya, Türkiye, 27-30 Ekim 2024, ss. 29-30, Antalya, Türkiye.