SHORT COMMUNICATION **Pakistan Vet. J., 2006, 26(1): 47-48.**

PRESENCE OF AN INTERMEDIATE LOBE ON THE LEFT LUNG INSTEAD OF RIGHT IN DOGS

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ABSTRACT

In the dog the intermediate lobe is usually found on right lung. Out of 120 dogs dissected in the Anatomical Laboratory, Department of Veterinary Anatomy, University of Agriculture, Faisalabad, this lobe was present on left lung instead of right in 12 cases.

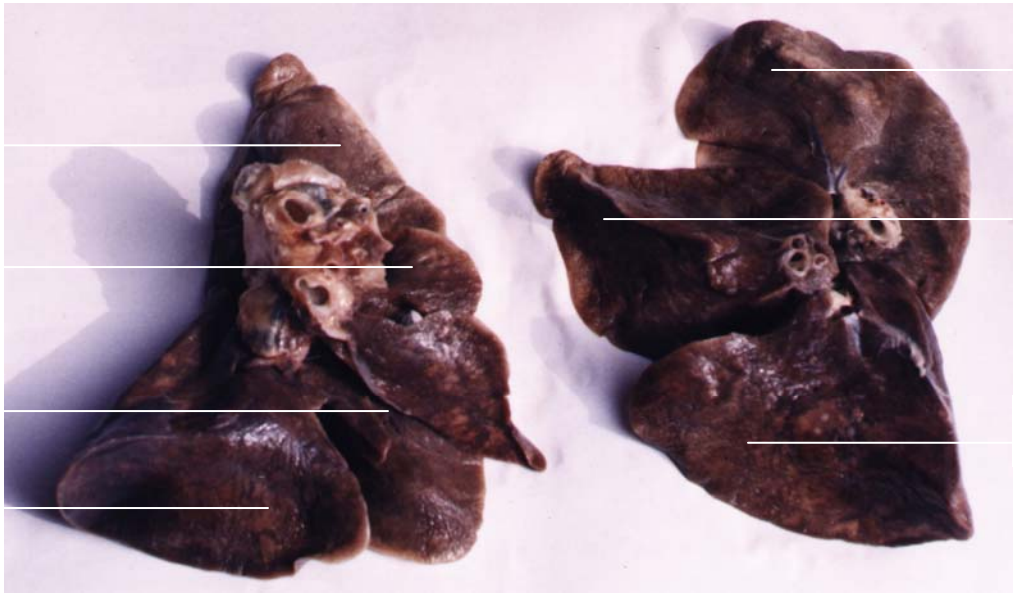
Key words: Intermediate lobe, left lung, dogs.

INTRODUCTION

Multiple malformations in neonates have been well documented in dogs. In animals of this species, the intermediate lobe of lungs is usually found on the right side (Ishaq, 1980). This report describes the shift of intermediate lobe of right lung to the left lung in dogs.

ANATOMICAL FINDINGS

A total of 120 stray dogs were brought for dissection in the Anatomical Laboratory, Department of Veterinary Anatomy, University of Agriculture, Faisalabad during the last 10 years period. Among these, 12 specimens showed intermediate lobe on the left lung instead of right (Fig. 1).



Left lung Right lung

Fig. 1: Photographs of left and right lungs of a dog (a-apical lobe, b-cardiac lobe, c-diaphragmatic lobe, d-intermediate lobe).

The intermediate lobe was most irregular of all the lobes of the lungs. It possessed a thickened middle portion and three processes; a dorsal, a ventral and a right lateral. The dorsal portion was sharply pointed, with a pyramid shaped eminence which extended caudally against the caudo-ventral face of the dorso-medial portion of the diaphragmatic surface of the heart. The dorsal and right lateral lobes were separated by a notch which lodged the caudal vena cava and the right phrenic nerve.

DISCUSSION

In almost all the domestic animals, the intermediate lobe is present on the right lung. In dogs the body size and breeds show more variations than other species. As the dogs are not slaughtered or they are rarely exposed surgically for lungs and heart surgery, so the presence of intermediate lobe on the left lung is not well documented.

This shifting might have genetic or non-genetic basis. These anomalies could be caused by environmental agents or teratogens. The period of high susceptibility to these agents is the period of early differentiation in the embryo or at the time when the germ layers and organs are rapidly developing. Anomalies could also be caused by ingestion of poisonous food material (Roberts, 1971).

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