Angles of branching and the diameters of pulmonary arteries in relation to the distribution of pulmonary lesions in canine dirofilariasis

Abstract:

Latex casts were made of the pulmonary arteries in 10 normal dogs. These casts were used to measure the angles of deviation of the right and left pulmonary arteries from the pulmonary trunk. The measurements were made in three projections. In both craniocaudal and dorsoventral projections the right pulmonary artery deviated more from the axis of the pulmonary trunk than did the left pulmonary artery. In the lateral projection, the right artery deviated ventrally and the left deviated dorsally, but the angles of deviation were similar. The diameter of the right pulmonary artery was significantly larger than that of the left. This difference in size of the major arteries could be a major determinant in the distribution of lesions in dirofilariasis. However the curved pathway taken by the blood as it is ejected from the right ventricle and the angles of deviation of the arteries as they branch from the pulmonary trunk could also play a part in the distribution of the lesions.