

Standard of the descending (basal) pulmonary artery in children from the routine chest radiograph

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The right and left basal artery have been measured in serial radiographs taken annually for 3 years or more, in 48 boys and 45 girls, all clinically normal. Centiles were constructed from 5 to 15 year old children. A study of the gain in size revealed a growth spurt during the pubertal period corresponding to that seen with height or weight gain. Correlations were found between right basal artery size (RBA), height and weight. Between 22 and 40% of the RBA diameter can be explained by these two metric traits. Multiple regression equations were therefore constructed to predict the diameter of the artery from a knowledge of the height and weight of the person. It is suggested that these can be of help especially in borderline cases when the size of the basal artery falls between the 90th and 97th centile. A study of 14 patients with a diagnosis of pulmonary hypertension or increased blood flow or both were plotted on one of these charts. In 11 the RBA was above the 97th centile. In three