

# What Is Your Diagnosis?

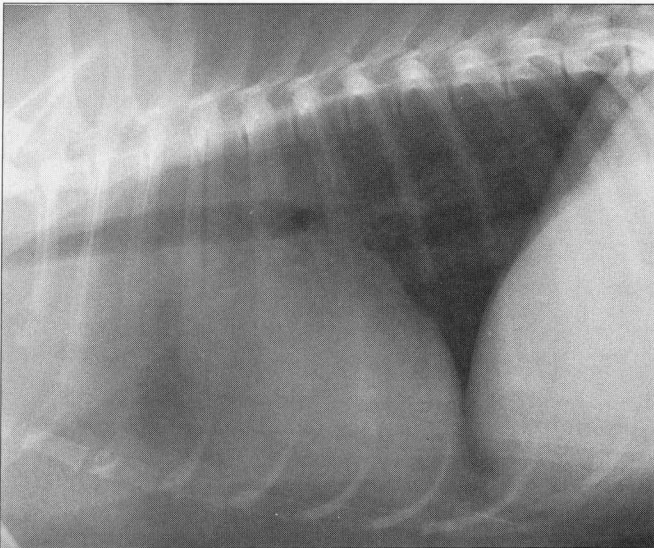


Figure 1—Lateral and ventrodorsal radiographic views of the thorax of a 7-month-old dog with a heart murmur and mild exercise intolerance.

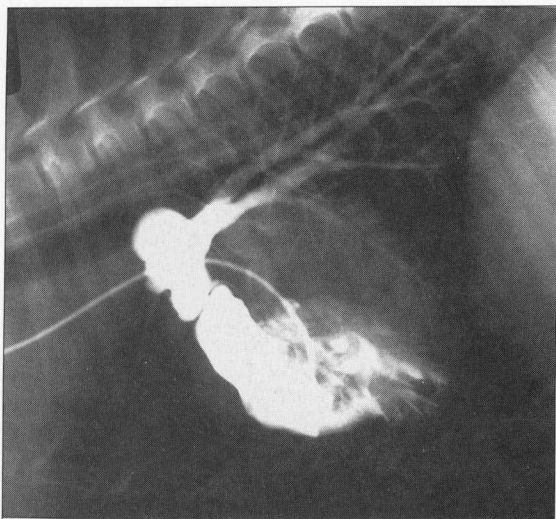
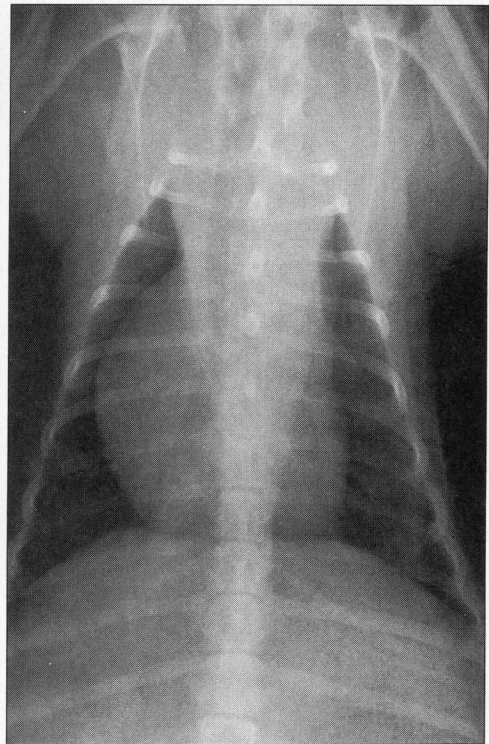


Figure 2—Lateral radiographic view of the thorax after contrast material<sup>a</sup> was injected into the right ventricle.

## History

A 7-month-old female Cocker Spaniel was examined because of mild exercise intolerance and a heart murmur. A systolic crescendo-decrescendo murmur with the point of maximal intensity at the left heart base was auscultated. A congenital cardiac anomaly was suspected. Survey thoracic radiography and selective angiography were performed (Fig 1 and 2).

Make your diagnosis from Figures 1 and 2—then turn the page ►

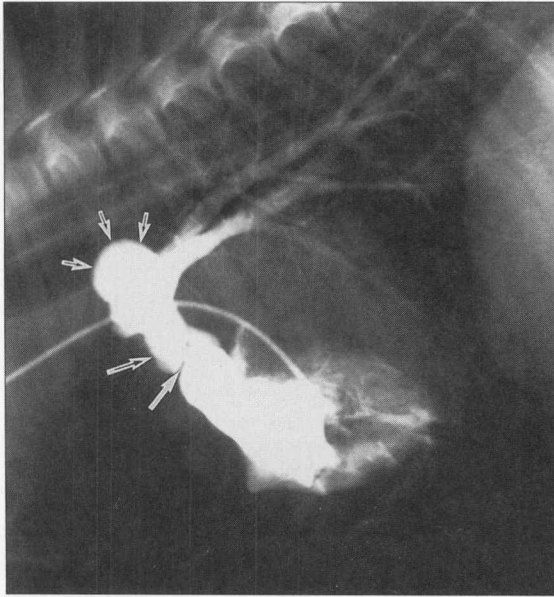


Figure 3—Same view as Figure 2. The white arrow indicates the pulmonary valves, the large open white arrow indicates the supravalvular stenosis, and the small open white arrows indicate the poststenotic dilatation.

### Diagnosis

**Radiographic diagnosis**—Right-sided cardiomegaly with a bulge in the pulmonary artery.

**Angiographic diagnosis**—Supravalvular pulmonic stenosis.

### Comments

On the ventrodorsal projection, there is widening of the cranial mediastinum. The heart appears as an inverted D, with the right side of the heart close to the right thoracic wall. A slight bulge

is evident in the pulmonary artery, but the pulmonary vasculature is normal. A greater than normal cranial-to-caudal dimension of the heart and mild elevation of the carina are evident in the lateral view. Angiography revealed supravalvular stenosis with a large poststenotic dilatation (Fig 3), but the possibility of a Tetralogy of Fallot was ruled out, because there was no evidence of a right-to-left shunt.

The dog was anesthetized and an unsuccessful attempt was made to correct the supravalvular pulmonic stenosis by arteriotomy and excision of the stenosis. Necropsy confirmed the diagnosis of supravalvular pulmonic stenosis; however, there was evidence of a valvular component to the stenosis, and slight over-riding aorta.

Although this dog had valvular and supravalvular components to the stenosis, the latter is rare in dogs.<sup>1</sup> There have been several techniques used to correct pulmonic stenosis. Arteriotomy and sharp dissection were performed in this dog because of the supravalvular location of the stenosis.<sup>2</sup>

<sup>1</sup>Renografin-76, Squibb Diagnostics, New Brunswick, NJ.

1. Shores A, Weirich WE. A modified pericardial patch graft technique for correction of pulmonic stenosis in the dog. *J Am Anim Hosp Assoc* 1985;21:809-812.

2. Eyster GE, Probst M. Basic cardiac procedures. In: Slatter DH, ed. *Textbook of small animal surgery*. 1st ed. Philadelphia: WB Saunders Co, 1985:1116-1117.

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