

Cardiovascular Imaging In-a-Month

● Suspected Left Ventricular Outflow Tract Pseudoaneurysm in a Patient With Takayasu's Arteritis

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CASE

A 45-year-old woman with Takayasu's arteritis diagnosed at the age of 16 years had chest oppression and shortness of breath during exercise. Severe aortic regurgitation was diagnosed and echocardiography suggested an

aneurysm of the Valsalva sinus in another hospital. She was referred to our hospital for further evaluation of the suspected aneurysm of the Valsalva sinus.

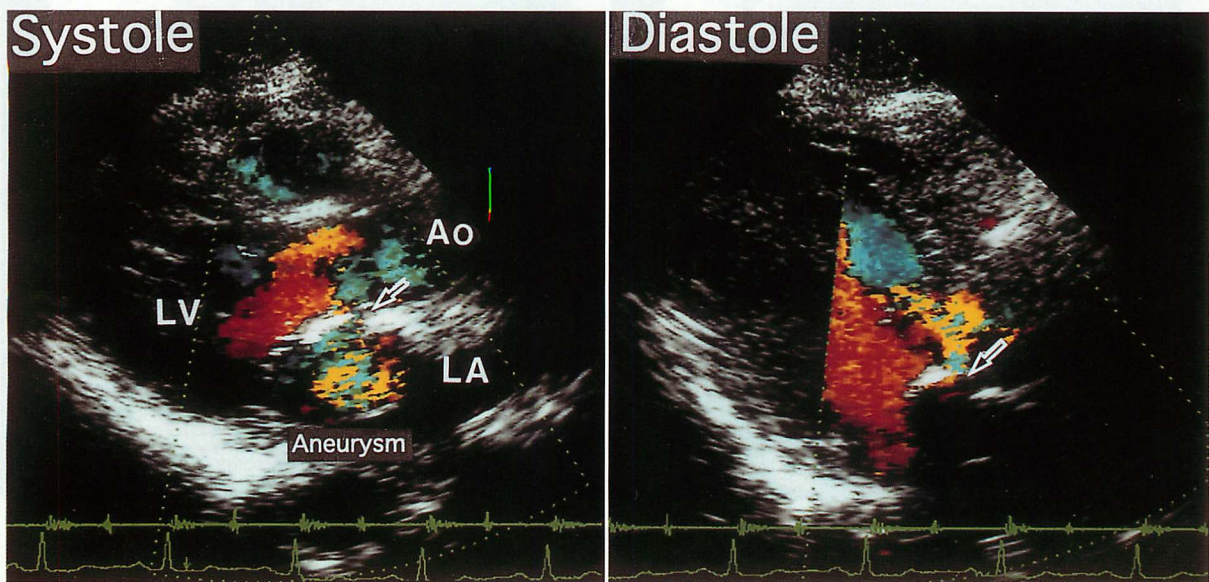


Fig. 1

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Received for publication July 1, 1998

Points on Diagnosis

Two-dimensional echocardiography revealed a sacular aneurysm located beside the left ventricular outflow tract and the Valsalva sinus. Doppler echocardiograms (**Fig. 1**) clearly demonstrated the systolic and diastolic blood flow between the aneurysm and the left ventricle accompanied by severe aortic regurgitation. Magnetic resonance imaging (MRI; **Fig. 2**) showed that the aneurysm communicated only with the left ventricle, with an entry of about 4 mm in diameter. The diagnosis was left ventricular outflow tract aneurysm associated with Takayasu's arteritis, which was confirmed during the patch closure and Bentall's operation. The orifice of the aneurysm was located in the aortomitral fibrous continuity under the commissure between left coronary and noncoronary cusp. Histological analysis indicated pseudoaneurysm with

mild lymphocytic infiltration.

Pseudoaneurysm is uncommon in patients with Takayasu's arteritis. In the present case, the pseudoaneurysm was located in the left ventricular outflow tract, and was hard to distinguish from a Valsalva sinus aneurysm by conventional morphological study. Dynamic flow studies with Doppler echocardiography and MRI were quite useful for the preoperative diagnosis.

Diagnosis: A pseudoaneurysm of the left ventricular outflow tract in a patient with Takayasu's arteritis

Acknowledgement

We thank Dr. Yutaka Ohkita, Dr. Hiroshi Matsuo, and Dr. Hitoshi Sumida for their valuable comments.

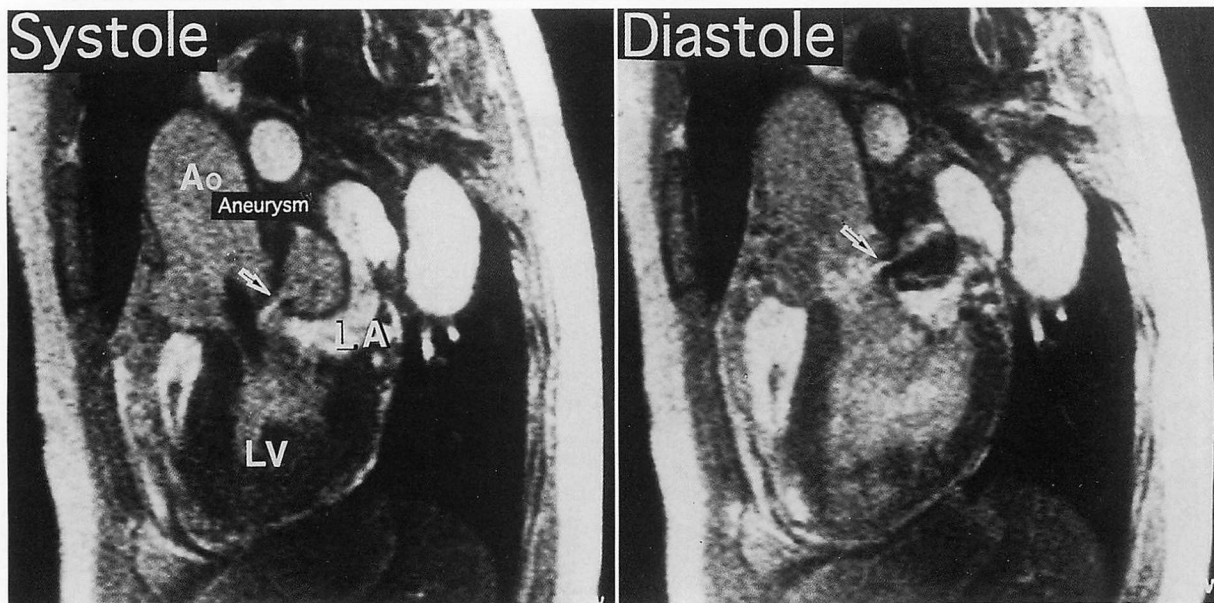


Fig. 2

Fig. 1 Echocardiograms showing parasternal views in systole (left) and diastole (right)

The color Doppler scan indicates the blood flow between the aneurysm and the left ventricular outflow tract (arrows).

LV = left ventricle; Ao = aorta; LA = left atrium.

Fig. 2 Sagittal magnetic resonance images showing that blood enters the aneurysm in systole (left) and returns to the left ventricle in diastole (right), and the orifice of the aneurysm (arrows)

Abbreviation as in Fig. 1.

要 約

左室流出路に仮性瘤が認められた高安病の1例

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症 例 45歳，女性．主婦

現病歴：16歳時，高安病と診断された．45歳時，運動中の呼吸困難と息切れを自覚．近医で施行された心エコー図検査にて，大動脈弁閉鎖不全とValsalva洞動脈瘤が疑われ，精査の目的で当院を紹介受診，入院となった．

診断のポイント：断層心エコー図では，左室流出路-Valsalva洞に近接した囊状瘤を認めた．ドップラー心エコー図では，重症の大動脈弁閉鎖不全とともに収縮期-拡張期を通して，瘤と左室との間を交通する血流が認められた．MRIにおいても，瘤は直径4mm以下の入口部を介して，左室とも交通していることが確認された．以上より，高安病に合併した左室流出路瘤と診断した．パッチ閉鎖およびBentall手術の際，瘤入口部は，左冠尖と無冠尖の間の交連部下のaortico-mitral fibrous continuityに確認された．組織学的検討では，リンパ球浸潤を伴った仮性瘤であると考えられた．

左室流出路仮性瘤を伴った高安病の稀な1例を報告した．本症例では，瘤は左室流出路に局在しており，従来の形態学的な診断ではValsalva洞動脈瘤と鑑別することは困難であった．ドップラー心エコー図法，MRIなどのdynamic flow studyが極めて有用であった．

— J Cardiol 1998; 32(5): 337-339 —

投稿を歓迎します