Eur J Echocardiography (2007) **8**, 487–506

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CASE REPORTS

Cardiac cavernous hemangioma

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Received 21 May 2006; received in revised form 3 July 2006; accepted 15 July 2006
Available online 28 August 2006

KEYWORDS
Cardiac neoplasm;
Cavernous hemangioma;
Interatrial septum

Abstract Among primary cardiac tumors, hemangiomas are relatively rare with a reported incidence of 2.8%. To date, less than 100 cases are reported in literature. We present a 40-year-old woman with atypical chest discomfort of 1 month duration, previous history of glomus tumor of hand and a large cavernous hemangioma of right atrium.

Introduction

Primary hemangioma of the heart was first described in 1893. McAllister reviewed 533 primary tumors and cysts of the heart and pericardium of which 15 (2.8%) were hemangiomas.[1] It is a rare benign primary cardiac tumor, with less than 100 cases described in current cardiac literature.[2] The origin of hemangiomas is uncertain; they are thought to be either true neoplasm or hamartomas. Hemangiomas are common benign congenital vascular lesions. They most often occur in the skin, but are occasionally found in internal organs.

Case report

A 40-year-old woman presented with atypical chest discomfort of 1 month duration. There was no history of cough, cyanosis or syncope. She had a previous hand surgery 2 years ago with a diagnosis of glomus tumor. General physical examination, electrocardiography and chest X-ray were unremarkable. Laboratory tests including hematology, immunology, biochemistry, urine analysis and coagulation tests were normal except for mild degree of anemia of iron deficiency type.

Transthoracic and transesophageal echocardiography revealed a large (3.5 × 3.2 cm) fixed well defined encapsulated homogenous echodense mass placed within the inferior portion of interatrial septum and deformed the interatrial septum as it protruded into the left atrium (Fig. 1). The other chambers were spare and there was no pericardial effusion.

The patient was taken to the operating room for elective excision of the cardiac mass, which was believed to be an atrial lipoma or hamartomas. The right atrium was opened and a 3.5 × 3.5 cm polypoid mass was found which was severely adherent to interatrial septum. The mass was excised with a rim of septum and the defect was then repaired with a patch of pericardium. The postoperative course was uneventful and the patient was discharged home on the 7th postoperative day.

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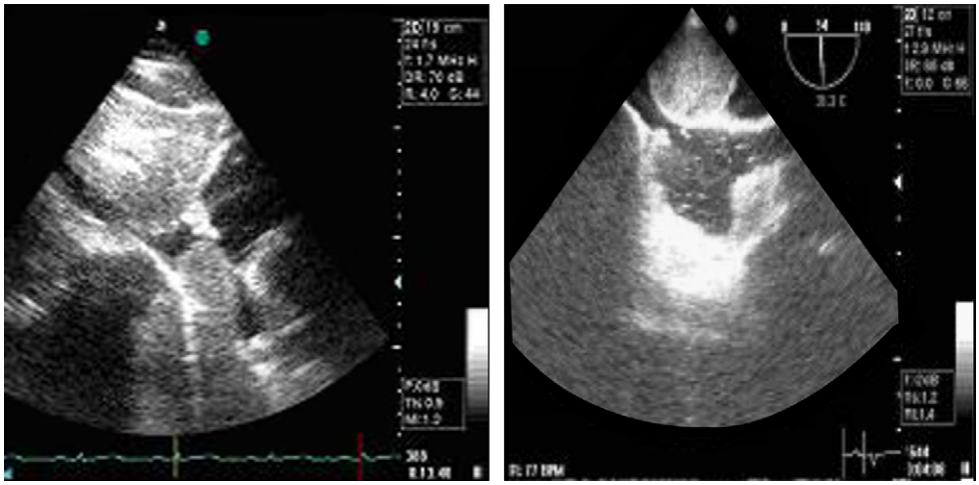

Figure 1 Transthoracic subcostal (left) and transesophageal bicaval (right) views. There is a large encapsulated homogenous mass in interatrial septum bulging into left atrium.

The specimen consisted of a round piece of tissue measuring 3.5 cm in diameter and was partially covered by a thin capsule. Histopathologic examination of the resected mass demonstrated a highly vascular tumor with infiltration of chronic inflammatory elements and multiple tortuous vascular channels filled with RBCs. There were many large cystic spaces lined with endothelial cells, compatible with cavernous hemangioma (Fig. 2), so abdominal CT scan was done which revealed liver hemangioma.

Discussion

Cardiac hemangiomas are composed of a benign proliferation of endothelial cells that are histologically identical to hemangiomas elsewhere in the body. This tumor can be localized in any part of the heart and pericardium. In a previous review of 56 cases of cardiac hemangiomas, 36% were found in the right ventricle, 34% in the left ventricle, 23% in the right atrium, and the rest on the interatrial septum and in the left atrium.[3] Histologic patterns that have been described include capillary hemangiomas, cavernous hemangiomas, hemangioendotheliomas, and intramuscular hemangiomas.[4]

Hemangiomas can present in any age group with a mild predominance in females. The symptomatology depends on the anatomic location and extension of the tumor. Though most cardiac hemangiomas are discovered incidentally, they may cause dyspnea, palpitation, atypical chest pain and arrhythmia.

Echocardiography is usually the initial imaging modality and has an 81% accuracy rate in detecting cardiac tumors, while CT scans and MRI have had

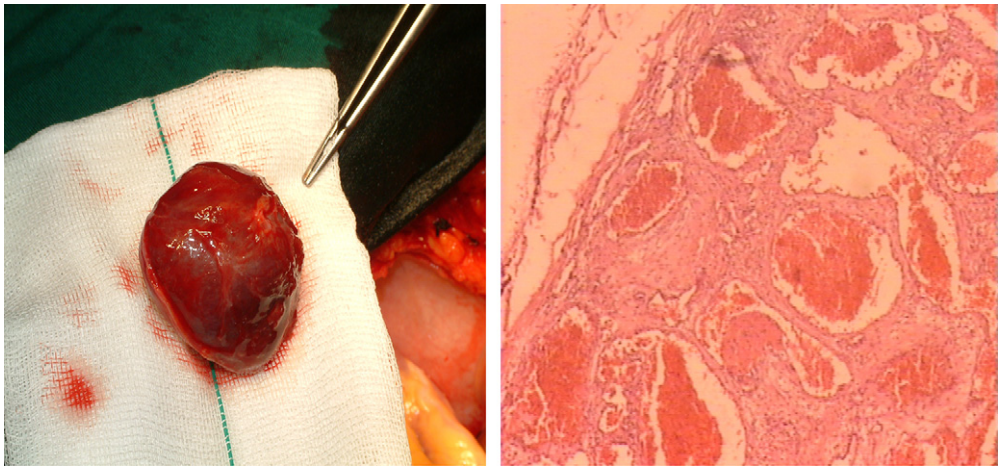

Figure 2 (Left) Gross specimen of tumor. Note gray capsule and hemorrhagic appearance. (Right) Microscopic view of tumor demonstrating proliferation of enlarged vessels filled with blood, and myxoid background, diagnostic of cavernous hemangioma.

a virtually flawless accuracy rate in exposing this condition. Recently CT and MR have been used in preoperative diagnosis and to evaluate extra cardiac extension and myocardial involvement,[5] however we only recommend these techniques in selected patients with unsatisfied echocardiography.

Cardiac catheterization studies (particularly ventricular angiograms) can help to diagnose a cardiac tumor in 40% of cases by revealing an intracavitary filling defect. Coronary arteriography often helps to establish the diagnosis; the classic finding is a vascular blush. It is recommended in older patients with suspected coronary artery disease and when a vascular tumor was diagnosed preoperatively.

Preoperative diagnosis of a cardiac hemangioma, however, occurs in a minority of cases. In our case, a cardiac tumor was diagnosed, but the nature of the tumor was unknown. The natural history of cardiac hemangiomas is variable and is the reason why all resectable lesions must be surgically removed. Surgical excision is the mainstay of treatment because of the benign nature of the tumor. The long-term prognosis is favorable after adequate surgical resection. Unresectable tumors have a poor prognosis and may lead to sudden death due to arrhythmias.

Conclusion

Echocardiography is an accurate, noninvasive, and frequently available imaging modality in detecting cardiac tumors. Coronary angiography, CT or MRI is recommended in selected patients with symptomatic coronary artery disease or in case of unsatisfied echocardiography.

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doi:10.1016/j.euje.2006.07.004

Papillary fibroelastoma of the aortic valve: A rare cause of stroke

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Received 9 June 2006; received in revised form 13 July 2006; accepted 26 July 2006
Available online 7 September 2006

KEYWORDS
Papillary fibroelastoma;
Cardiac tumor;
Stroke;

Abstract We report a case of a 59-year-old woman with recurrent cerebrovascular insults caused by a papillary fibroelastoma of the aortic valve. Primary cardiac tumors are rare. Papillary fibroelastoma (PFE) is the most common valvular tumor and the second cardiac benign tumor after myxoma. The clinical presentation of

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