Letters to the Editor

The Editor welcomes submissions for possible publication in the Letters to the Editor section that consist of commentary on an article published in the Journal or other relevant issues. Authors should:

- Include no more than 500 words of text, three authors, and five references
- Type with double-spacing
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Vascular obstruction related to mediastinal fibrosis: An interesting clinical entity

To the Editor:

We read with interest the article published by Zhang and associates.¹ They have presented an interesting clinical scenario in which tuberculosis caused encasement of the aorta, pulmonary arteries, and coronary arteries owing to mediastinal fibrosis. They treated their patient surgically to relieve the mediastinal vascular occlusion. We would like to share our clinical experience with this rare clinical entity.²

Myocardial ischemia was the presenting symptom in our patient with a background of long-term use of methysergide for migraine. There was prominent involvement of the aorta with thickening of the wall and of the left and right coronary artery ostia. Preoperatively, an accurate diagnosis could not be established. The diffuse fibrotic process was found to involve the ascending aorta and proximal aortic arch intraoperatively. The coronary ostial occlusion was obviously due to the extreme thickening of the ascending aorta. We used circulatory arrest to replace the ascending aorta and performed partial arch replacement with saphenous vein grafting of the left anterior descending and right coronary arteries.

Coronary artery involvement may be in the form of stenosis of the origin of left and right coronary arteries or there may be diffuse involvement of coronary arteries owing to extensive fibrosis of the wall. Overall mediastinal fibrosis is an extremely uncommon indication for coronary artery bypass surgery.^{3,4}

We agree with the authors that there are two important points to consider in these patients regarding surgical management. Operative intervention is required to relieve the vascular obstruction and to establish the diagnosis. The role of specific medical treatment is evident from the case reported by Zhang and associates.¹ The coronary artery occlusion along with the involvement of other great vessels disap-

peared with antitubercular treatment on postoperative follow-up.

We congratulate the authors on the successful management of a difficult case and emphasize that surgery should be performed earlier in suspected cases presenting with mediastinal fibrosis with vascular occlusion to treat potentially treatable causes like mycobacterial infection, to discontinue an offending drug, and to establish the diagnosis of malignancy.

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Reply to the Editor:

We appreciate the comments by Drs Saxena and Tesar on our article.¹ Their respectable clinical experiences describe surgery of the ascending aorta and partial arch replacement with saphenous vein grafting of the left anterior descending and right coronary arteries due to diffuse fibrotic mediastinitis.²

Sclerosing mediastinal fibrosis is a fibrous proliferative inflammatory process usually involving the superior mediastinum. Many etiologic factors have been cited in the causation of fibrosing mediastinitis, including bacterial infection, fungal infection, drugs,

autoimmune disease, and other idiopathic causes. The degree of fibrosis determines the clinical significance of the mediastinal lesions. Most patients have nonspecific symptoms and the mediastinal fibrosing disorder is often discovered as an incidental radiologic finding. Enhanced computed tomography may be helpful in identifying the mediastinal changes and the degree of compression of the involved structures. There is no universally accepted therapeutic modality for the treatment of chronic fibrosing mediastinitis. Surgical intervention is initially indicated in most patients to establish a diagnosis and particularly to rule out neoplasia. Surgical management is also necessary to alleviate the compression of involved structures and relieve the symptoms.

We congratulate the authors on the successful management of a difficult case. However, in our case we could not perform a similar operation because the diagnosis of mycobacterial infection was established. The mycobacteria perhaps would involve the prosthetic vessel and induce severe infection. However, medical therapy with an antitubercular drug can be administered in the case of positive identification of the mycobacteria. The results also showed that occlusion of the coronary artery along with the involvement of other great vessels had already disappeared with antitubercular treatment in our patient.²

We should consider some important points regarding similar patients with fibrosing mediastinitis, including the diagnosis, relief of the vascular obstruction, and advanced therapy. Surgical management is widely recommended for the diagnosis of suspected cases. If the diagnosis is established, some patients should be treated by surgical management at the same time and some patients should be treated with a drug. Although some cases of the disease may be considered idiopathic after surgical diagnosis, fibrosing mediastinitis should be treated surgically if the symptoms need immediate relief. Otherwise, idiopathic fibrosing mediastinitis should first be treated by steroids or tamoxifen rather than by advanced surgical treatment.³

The prognosis for fibrosing mediastinitis, generally speaking, is good with medical therapy. However, the mortality of the patients without therapy is still high and the health of many surviving patients becomes compromised as a result of disease progression. Fibrosing mediastinitis is still a chal-

lenge for thoracic and cardiovascular surgeons.

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Severe vasospasm in off-pump coronary artery bypass surgery: A difficult clinical problem To the Editor:

We read with interest the article published by Schena and associates.¹ They have

highlighted the importance of vasospasm in the nongrafted right coronary artery (RCA) without any hemodynamically significant disease in a patient undergoing off-pump coronary artery bypass surgery (OPCAB) to the diseased left-sided vessels. We² have had a similar experience in which initially vasospasm developed in a normal RCA after OPCAB to the left anterior descending (LAD) and obtuse marginal arteries. The spasm was relieved by an intracoronary injection of vasodilators. Subsequently, severe vasospasm involving the left internal thoracic artery (LITA) and LAD developed. There was no improvement in myocardial ischemia despite use of intracoronary vasodilators and an intra-aortic balloon pump (IABP). This patient required a drug-eluting stent across the LITA-LAD anastomosis for relief of the spasm (Figure 1).

The incidence of persistent vasospasm requiring the use of intracoronary vasodilators, IABP, or stents in our experience with 677 OPCAB procedures was 0.33%.² If there is no improvement in myocardial ischemia despite standard measures or in the setting of recurrent myocardial ischemia after OPCAB surgery, intracoronary stents may have to be used. Coronary angiography should be performed promptly if unexplained myocardial ischemia occurs in the immediate postoperative period. An aggressive approach to this problem is associated with a satisfactory outcome.

We congratulate the authors on the successful management of a difficult case and

Figure 1. Severe vasospasm involving LITA and LAD, including the anastomotic area (A). Result of stent placement across the anastomosis (B). Source: Saxena P, Konstantinov IK, Singh T, Koniuszko MD, Newman MAJ. Persistent severe vasospasm in off-pump coronary artery bypass surgery: the value of intraluminal stenting. *J Thorac Cardiovasc Surg.* 2006;131:237-8. Reproduced with permission of Elsevier Inc.