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doi:10.5152/akd.2013.129

Self-inflicted sewing needle in the heart

Kalpte dikiş iğnesi

A 29-year-old prisoner was referred to our hospital with a suspicious intramyocardial foreign body.

After closer questioning, it was discovered that he had inserted a sewing needle into his left parasternal region seven months ago. He was symptomless until last month that he had admitted to a local hospital with a pleuritic chest pain. According to the local hospital clinical records, his chest radiography had revealed a left sided hemothorax that had been treated with tube thoracostomy procedure and a narrow linear metallic density along the left border of the heart. The patient was referred to our hospital for further treatment. His chest radiograph revealed a needle within the cardiac silhouette (Fig. 1A). His computed tomography of the chest (Fig. 1B) and fluoroscopy (Video 1. See corresponding video/movie images at www.anakarder.com) showed a needle lodged in the left ventricle. Transthoracic echocardiography showed a linear, highly echogenic foreign body in the left ventricle placed from apex to mitral valve (Fig. 1C). Surgical removal was planned. During surgery; the needle ends could not be seen. Needle was palpated on the anterolateral wall of the left ventricle. The muscle over the needle was incised and grasped with a small artery forceps, and pulled out of the lateral wall. The needle was 5 cm long and 1 mm thick (Fig. 1D). The patient's course was uncomplicated.

Current literature suggests that the timing of diagnosis after the injury is important for the decision making for treatment. Needle injury, which has been diagnosed early should be treated surgically, to reduce further myocardial damage. If diagnosed after the injury, asymptomatic foreign bodies with no associated risks may be treated conservatively. But strict follow-up is useful, because even after years they may cause complications.

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Video 1. Fluoroscopic appearance of needle in the heart

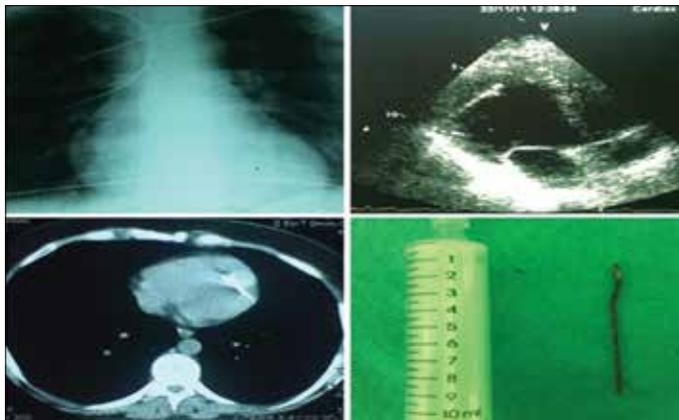


Figure 1. Different radiological appearance of needle in the heart

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Available Online Date/Çevrimiçi Yayın Tarihi: 22.04.2013

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The importance of prominent crista terminalis after cardiac surgery

Kalp cerrahisi sonrasında belirgin krista terminalisin önemi

A 21-year-old woman with history of recent abdominal surgery was referred to our center due to prolonged fever and weight loss. Transthoracic echocardiography (TTE) revealed a large mobile mass on the tricuspid valve (TV), resulting in the destruction of the TV leaflets (Fig. 1). She had a history of central venous pressure-line insertion in the right atrium (RA) during previous operation. Positive blood cultures confirmed the diagnosis of acute infective endocarditis. She underwent TV repair, and full medical treatment was continued. Interestingly, in contrast to the preoperative TTE, which showed no evidence of a crista terminalis, the postoperative TTE revealed a prominent crista terminalis, mimicking and a RA mass (Fig. 2A, B). A crista terminalis is a RA pitfall often erroneously interpreted as pathologic and is more often diagnosed after cardiac surgery and tends to be confused with a thrombus or tumor. Our diagnosis was subsequently confirmed by transesophageal echocardiography (Fig. 3, Video 1. See corresponding video/movie images at www.anakarder.com). The prominence of the crista terminalis varies widely in adults. If the prominence of the crista terminalis is superior, it can appear as a RA mass on TTE. However, the existing literature lacks large studies on the frequency and characteristics of a prominent crista terminalis via TTE. Our case was unique inasmuch as the crista terminalis was prominent in post cardiac surgery: it was a large mass that could be confused with a thrombus or tumor. In order to avoid unwarranted clinical intervention, clinicians should be familiar with this pitfall.

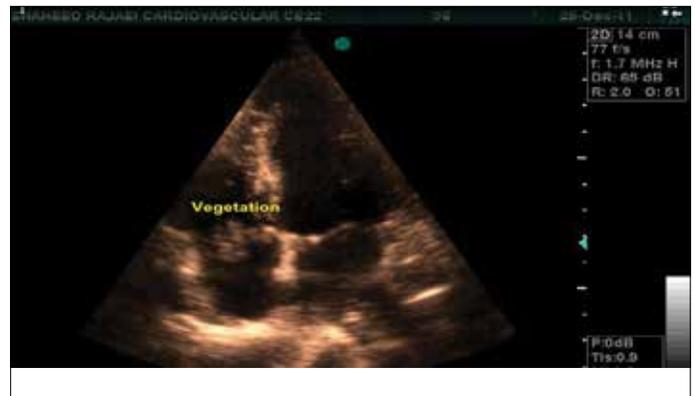


Figure 1. A large mass on the anterior leaflet of the tricuspid valve without evidence of a crista terminalis