

AN UNUSUAL IATROGENIC COMPLICATION: NEEDLE IN THE PERICARDIAL SPACE IN POSTCARDIOTOMY PATIENT

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72 yaşında erkek hasta, kliniğimize, perikardiyal aralıkta iğne unutulma öntanısıyla gönderildi. Hastanın özgeçmişinde koroner bypass ve Benthall operasyonları mevcuttu. Bir yıl önce, postoperatif dönemdeki takiplerinde herhangi bir komplikasyon olmadığı öğrenildi. Operasyondan 1 yıl sonra karın ağrısı nedeniyle başvurduğu acil serviste, çekilen lateral akciğer grafisinde, apexle komşuluğu olan iğne görüntüsü saptanmış olup hastanın iğne ile ilişkili hiçbir aktif yakınması ve yine iğne ile ilişkili hiçbir fizik muayene bulgusu yoktu. Hasta kliniğimize izlem ve tedavi amaçlı yönlendirildi.

Apex komşuluğundaki iğne, ekokardiyografi ve CT ile doğrulandı.hastaya, iğneyi almaya yönelik cerrahi operasyon önerildi, ancak hasta operasyonu kabul etmedi. Açık kalp cerrahisinde,gazlı bez ya da alet unutulması,oldukça nadir komplikasyonlardır.

Anahtar kelimeler: Coronary bypass graft operation, Postoperative complication, Pericardial foreign body

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INTRODUCTION

Open cardiac surgery has been carried a high complication rate. Most of these complications are related to the extracorporeal circulation. Common complications include reactionary hemorrhage and cardiac arrhythmias such as AF %16¹, sick sinus syndrome %4.6, AV block %1.8². Uncommon complications include acute aortic dissection 0.03%-0.35%³, upper gastrointestinal hemorrhage 0.4%(4). In such risky operations forgetting tools or sponges are rare and mostly diagnosed perioperatively⁵ or at early postoperative period. We present a rare case of needle forgotten in the apex of the heart presented one year after the operation and without active complain.

CASE REPORT

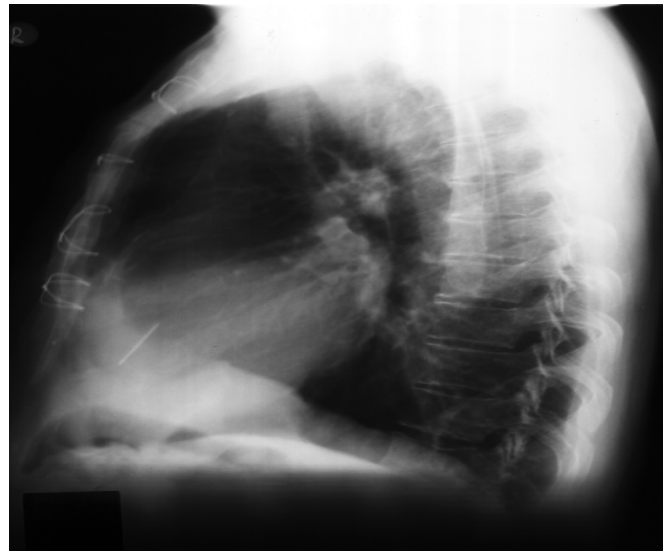
A 72 years-old male patient consulted to our clinic with the possibility of a forgotten needle in the chest cage. He had a history of coronary bypass graft and benthall operation one year ago. At postoperative follow up, the patient did not show signs of early postoperative complications. Anteroposterior chest x-ray showed no significant changes. On fifth postoperative day the patient discharged from hospital with suitable advice and medications.

Before one month from presentation to our clinic, the patient admitted to emergency room with abdomi-

nal pain and nausea, no surgical cause was found and he was treated with suitable medications.

One of the investigations was two view chest x-ray; performed on suspicion of basal pneumonia; on lateral chest x-ray there was a needle near the heart shadow (Figure 1). Possible routes for a needle to reach the pericardial space was limited to direct injury or tooles forgotten in the chest cage⁶. Because of the history of open cardiac surgery, the possible way was an iatrogenic operative complication. For that reason, the patient was consulted to our clinic with possibility of for-

Figure 1: Lateral chest x-ray reveal a needle near the heart in the chest cage



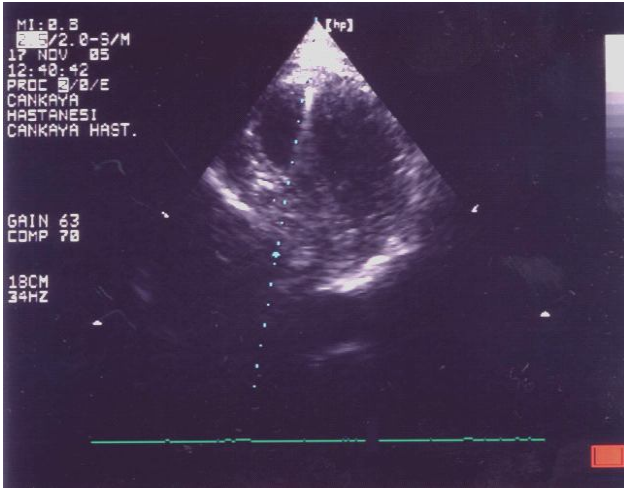
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Figure 2: Transthoracic echocardiogram: 2C apical view showing needle in the pericardium (possibly in the apex of the heart).



gotten needle in the chest cage. The echocardiography revealed the needle in the pericardial space near the apex of the heart, the tip of which was possibly in the apex of the left ventricle and it was moving with the heart beat (Figure 2). More details about the needle was obtained from the thoracic computerized tomography. Surgical operation for removing of the needle was advised but the patient refused the operation and accepted living with the risk of needle related lethal complications for the rest of his life.

The patient discharged with suitable advice and medications. The patient seen one month later, he had no active complain. Patient now on regular control every six months.

DISCUSSION

Major iatrogenic complications were frequent and associated with increased morbidity and mortality rates. Iatrogenic complications may be related to high or excessive workload and were often secondary to human errors⁷. Iatrogenic complications are uncommon during open cardiac surgery. Air embolism, aortic perforation, aortic dissection, early postoperative hemorrhage (because of inadequate mechanical hemostasis or loosening of clips or ties around blood vessels) and leaving tools and instruments inside a surgical patient are examples of such iatrogenic complications. Studies show that leaving tools inside a surgical patient is rare⁸. Such complication mostly diagnosed perioperatively⁵ or at early postoperative period.

Many centres practise the use of needle in de-airation of the heart. In a centre which has a good experience in the cardiac surgery with over one thousand open cardiac surgery per year the surgical team failed in identification of needle forgotten near

the apex of the heart. Fortunately it did not cause any complication at postoperative period.

On follow up, the posteroanterior chest x-rays did not reveal the needle. It was possibly obscured by the shadow of the heart. One year later the lateral chest x-ray revealed the needle in the chest cage and echocardiography confirmed the presence of the needle near the apex of the heart in the pericardial space. The importance of postoperative lateral chest x-ray and early postoperative transthoracic (even intraoperative transesophageal) echocardiographic is obvious. A single lateral chest x-ray or echocardiography may cost too little but it may be very useful in diagnosing such rare complications. Also from our point of view, the use of injector needle for de-airing of the left ventricle is incorrect and associated with increase risk of hemorrhage.

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