

Editöre Mektup

Malposition of the Hemodialysis Catheter in the Persistent Left Superior Vena Cava

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Persistent left superior vena cava (PLSVC) is the most common thoracic venous anomaly. The prevalence of PLSVC ranges from 0.3% to 0.5% in healthy individuals ^[1]. PLSVC most frequently drains into the coronary sinus, however, 8% of them drain into the left atrium. PLSVC may present with extra-, and intracardiac malformations such as atrial and ventricular septal defect. Besides that, esophageal atresia is the most common extracardiac malformation that accompanies PLSVC. It often remains asymptomatic. Temporary hemodialysis catheters are widely used in the patients with renal insufficiency who urgently need hemodialysis. The right internal jugular vein is widely used for hemodialysis access which drains into the right atrium ^[2]. Moreover, left internal jugular and femoral veins may be used. Malposition of hemodialysis catheter in the PLSVC may also be symptomatic or detected incidentally. Malposition of the catheter may cause serious complications such as systematic embolization, coronary sinus thrombosis, cardiac arrhythmias, thrombus, shock, angina and cardiac arrest ^[3].

A 16-year-old female patient was admitted with chronic renal insufficiency for temporary hemodialysis catheter insertion. She had a history of numerous catheter insertions. On examination, the general appearance of the patient was good. She had an infected permanent catheter which was placed in the right internal jugular vein. The permanent catheter was removed and a new temporary catheter was placed

via the left internal jugular vein under ultrasound guidance without any difficulty. However, malposition of the hemodialysis catheter in the persistent left superior vena cava was detected on the chest X-ray (Figure 1). Transthoracic echocardiography confirmed the PLSVC and no additional cardiac anomaly was detected. Consequently, the catheter was withdrawn. Venous malformations are rarely seen in the thorax, for this reason, PLSVC is often detected incidentally during implantation of permanent pacemaker,

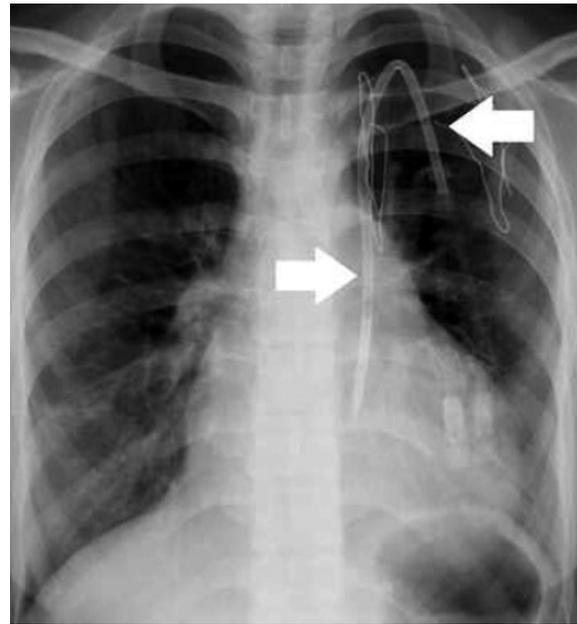


Figure 1. View of the malposition of the hemodialysis catheter in the persistent left superior vena cava on the chest X ray.

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pulmonary artery catheterization, and hemodialysis catheterization ^[4].

In conclusion, systemic venous malformations should be kept in mind during hemodialysis catheter insertion. Chest X-ray must be routinely performed immediately after the insertion. In case of malposition of the hemodialysis catheter in the PLSVC, the catheter should be removed and replaced.

Disclosures

The patient's informed consent was obtained.

Declaration of conflicting interests

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