

Occlusion of the Subclavian Vein in Patients with a Cardiac Surgical Profile

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Abstract

Features of the anatomical structure and topographic and anatomical relationships of the main veins of the upper extremities, taking into account the direction of the venous blood flow, determine the high frequency of use of these vessels in medical practice. As the frequency of use of catheters and pacemakers increases, the number of deep vein thrombosis increases, the frequency of which, according to some authors, can reach 15%.

Keywords: *Subclavian Vein; Cardiac Surgical Profile*

Introduction

The earlier belief that thrombosis of the upper limb is rare and not involved in the onset of pulmonary embolism has been controversial. According to recent data, the frequency of pulmonary embolism in 10-17% of cases is caused by deep vein thrombosis of the upper extremities.

The pathogenesis of deep vein thrombosis of the upper limb can be based on mechanical factors that contribute to compression from physical effort involving the shoulder girdle. Hypertrophic muscles of the shoulder girdle also contribute to narrowing of the venous lumen. The second group of reasons is associated with the presence of a foreign body in the lumen of the vein. The constant presence of a catheter in the lumen of the vein contributes to the occurrence of damage to the intima of the vessel and triggering coagulation changes [1-3].

Aim of the Study

The aim of our study was to describe 2 cases of subclavian vein thrombosis.

Materials and Methods

Analysis of case histories of 2 patients who were undergoing treatment at the Grodno Regional Clinical Cardiology Center.

Case Study

Patient O. born in 1959 entered the hospital for implantation of a pacemaker. Puncture of the subclavian vein failed. The venography of the brachial and axillary veins was performed (contrast medium - Visipack 320 - 50 ml). On the survey phlebography (Figure 1), occlusion of the left subclavian vein with a developed collateral network was determined. From the anamnesis of life and the anamnesis of the di-

sease, there were no previous injuries and manipulations in the left subclavian region. The patient did not indicate clinical manifestations of phlebothrombosis. The decision was made to implant the endocardial electrode from the contralateral side, i.e. on right.

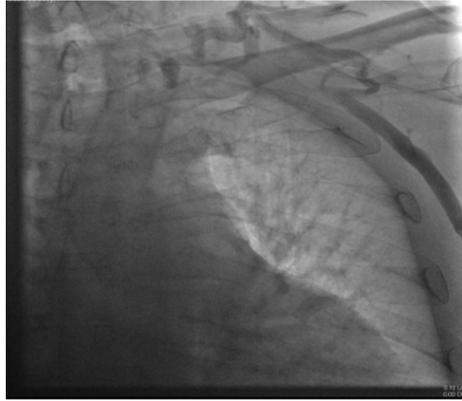


Figure 1: Occlusion of the left subclavian vein.

In the second case, the patient M., born in 1960 atrial electrode reimplantation performed. In connection with the atrial electrode dysfunction, the subclavian vein was punctured on the left. It was not possible to conduct a vascular conductor. Performed venography of the subclavian vein on the left (tomohexol 350-50 ml). On the review venography, occlusion of the distal part of the subclavian vein with a well-developed collateral network was determined (Figure 2).



Figure 2: Occlusion of the distal part of the subclavian vein on the left.

Conclusion

The variability of the veins of the upper extremities is extremely high. Complex topographic and anatomical relationships, combined with rare anatomical variants of the course of the vessel, determine the difficulties that surgeons encounter when performing manipulations.

ons. Presented cases are rare, but doctors must remember the features of the clinical picture under these conditions, and this is especially relevant for sports doctors.

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