Case Report

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Nech Horn Formation After Jugular Vein Catheterization for Haemodialysis: Case Report

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Abstract

Haemodialysis is an essential life-saving procedure for persons suffering from kidney failure. Haemodialysis is usually acheived by central venous catheterization. Neck hornformation is one of the most serious and seldom complications of the procedure. A 43-year-old man's right internal jugular vein was catheterized for haemodialysis after his arteriovenous fistula failed. The catheter puncture site produced a neck horn after removal. Surgery included horn resection and thrombus evacuation. Neck horn following an internal jugular catheter insertion might be dangerous if left untreated. The horn and thrombus are best removed surgically and treated with antibiotics.

Keywords: Jugular vein catheter, neck horn formation, chronic renal failure, haemodialysis

Introduction

This case study describes the development of a neck horn in a young man with chronic renal failure who was receiving haemodialysis via the right internal jugular vein catheter. Haemodialysis is a life-saving technique for individuals suffering from renal failure, but there are possible consequences that must be considered, as with many medical procedures. one of the most dangerous consequence of such internal jugular vein catherization is the growth of a neck horn, which, if left untreated, might lead to major health problems. This case report will contain a comprehensive assessment of the thsi complication, as well as medical advice and suggestions for the best course of action.

Case Report

A 43-year-old male patient with chronic renal failure has been receiving hemodialysis through a left radiocephalic arterovenous fistula for the past 5 years. The fistula had been sealed off due to thrombosis. The patient had a new fistula created in the right upper extremity, and a hemodialysis catheter was inserted into the right internal jugular vein to be used until the new fistula was ready to be used. Since the area on the right side of the neck where the catheter had been implanted had become bloated, red, and painful following the initial implantation of the catheter, the nephrologist withdrew the catheter and inserted a new one through the right femoral vein one week later. Three more weeks passed before the patient started complaining of a horn-like growth on the right side of their neck. There was a 3.5 cm long, firm, painful, crimson horn at the site where the catheter was inserted. There was a dried-out black spot near the tip of the horn. CT scanning revealed thrombosis in a venous sinus (Figure 1).

Figure 1.

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Under general anesthesia, a transverse incision was made in the horn's bottom board following completion of all preoperative preparations. All thrombi were eliminated with success. A jugular vein had been severed, but there were no visible signs of hemorrhage intra-and postoperatively. The thrombus was successfully removed, and the lesion was appropriately closed.

The patient was observed in the hospital ward for two days before being discharged without incident or complaint.

Discussion

Neck Hornformation, also known as Pseudoaneurysm, which is a vascular complication that can develop during jugular vein catheterization for hemodialysis [1]. Neck Hornformation occurs when the arterial wall is compromised, allowing blood to escape and accumulate in the surrounding tissue. [2]. This may lead to severe complications, including pain, swelling, localized infection, hemorrhage, and even nerve injury [3-5]. It is essential to closely watch individuals undergoing catheterization, and if any indications of Neck Hornformation appear, quick medical attention should be sought.

Initial symptoms include a nodule, erythema, and discomfort at or along the catheter site. If these symptoms are present, anti-inflammatory drugs, tepid compresses, and gentle massage may be prescribed. In extreme cases, catheter removal may be necessary [6].

In situations of developing horn, surgical surgery including excision of the horn and evacuation of the accumulated thrombus may be the most effective approach of treatment.

In our situation, antibiotics and anti-inflammatory medications had been administered. When preparing the patient for surgery, we were concerned about the possibility of active bleeding after thrombus removal. Therefore, blood preparation was performed, and the patient was placed under general anesthesia so that, in the event of active hemorrhage, we can prolong the incision until we reach the internal jugular vein or the other surrounding structures that may be implicated.

Fortunately, there was no active bleeding, and the procedure proceeded without incident.

Conclusion

The development of neck horn afterinsertion of an internal jugular catheter is a major problem if not effectively managed. Antibiotics and surgical excision of the horn with evacuation of the thrombus are the most successful therapies.

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