



Caso Clínico

Acquired Ondine's curse: first-time-reported complication of the endovascular treatment of the subclavian artery

Síndrome de Ondine adquirido. Primer reporte de una complicación del tratamiento endovascular de la arteria subclavia

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Palabras clave:

Síndrome de Ondine.
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Isquemia aguda
de extremidades
superiores.

Abstract

Introduction: an 81-year-old man with cardiovascular risk factors was admitted for angiodysplasia with significant blood loss. He developed acute cyanosis, coolness, and motor and sensory deficits in the left upper limb.

Case report: urgent revascularization of the left subclavian artery with a covered stent was performed to prevent distal embolization. Despite technical success, the patient developed neurological deterioration. T2-weighted MRI revealed infarction of the medulla oblongata involving the respiratory center, attributed to thrombus migration via the vertebral artery.

Discussion: this case underscores the risks of endovascular revascularization and exposes this fatal complication that the team has to be aware of during endovascular subclavian artery revascularization.

Resumen

Introducción: varón de 81 años con factores cardiovasculares de riesgo que ingresó por angiodisplasia con sangrado significativo. Desarrolló cianosis aguda, frialdad y déficit motor y sensitivo en la extremidad superior izquierda.

Caso clínico: se realizó revascularización urgente de la arteria subclavia izquierda con stent cubierto para prevenir la embolización distal. A pesar del éxito técnico, el paciente presentó deterioro neurológico. La resonancia magnética T2 mostró infarto bulbar que comprometía el centro respiratorio, atribuido a migración del trombo por la arteria vertebral.

Discusión: este caso resalta los riesgos de la revascularización endovascular y la importancia de considerarla en el momento de revascularizar la arteria subclavia por vía endovascular.

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Consent/ethical statement: All the risks, benefits, alternative and specific details about the device and the procedure to be performed were explained to the patient. Patient accepted the surgery and publication of the case. Our study was carried out in accordance with the ethical standards from the 1964 Declaration of Helsinki.

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INTRODUCTION

An 81-year-old male with significant cardiovascular risk factors was admitted for management of colon angiodysplasia (ascending colon), presenting with substantial blood loss and hemodynamic compromise.

CASE REPORT

During hospitalization, the patient developed acute symptoms in the left upper extremity, including cyanosis, coolness, and marked motor deficit with loss of strength up to the elbow, as well as sensory loss in the forearm and hand. The subclavian artery occlusion was suspected to result from local thrombosis of an atherosclerotic plaque in the context of hypovolemia. Urgent revascularization of the left subclavian artery was performed. The initial thrombectomy attempt using a Fogarty catheter was unsuccessful due to navigation failure. Due to the confirmed thrombotic etiology, an endovascular procedure was performed using a covered balloon-expandable stent to prevent distal embolization. Despite the technical success of the procedure, the patient subsequently developed neurological deterioration. Magnetic resonance imaging (T2-weighted MRI) revealed an infarction of the medulla oblongata involving the central respiratory center, consistent with a stroke. The etiology was attributed to thrombus migration through the vertebral artery during the intervention.

This case highlights the complexity and potential risks associated with endovascular revascularization in patients with significant comorbidities and underlines the importance of vigilant neurological monitoring following such procedures.

DISCUSSION

Ondine's curse encompasses all conditions characterized by the spontaneous onset of life-threatening hypoventilation. Although a congenital etiology is

widely recognized, an iatrogenic focal lesion involving the dorsolateral segment of the medulla oblongata can reproduce this syndrome, with equally catastrophic consequences. This rare but serious complication must be considered when treating the prevertebral segment of the subclavian artery, as injury to this region may result in the development of Ondine's curse. Affected patients would require permanent respiratory support (Fig. 1).

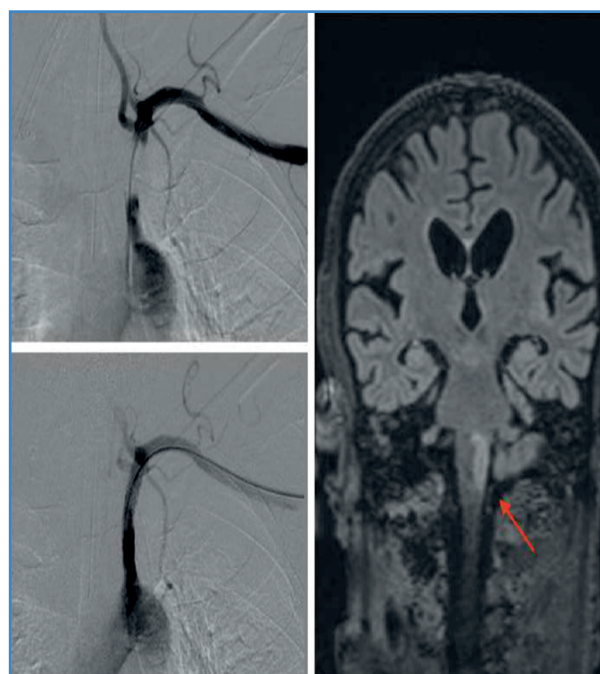


Figure 1.

RECOMMENDED REFERENCES

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