



## Management of severe intracranial hypertension in a patient with cerebral venous thrombosis

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### Introduction

Intracranial hypertension is a common complication of cerebral venous thrombosis. In the literature, recommendations regarding the management of intracranial hypertension in cerebral venous thrombosis are scarce due to the lack of controlled studies. The use of acetazolamide, corticosteroids, shunt and lumbar puncture have already been described. The shunt modalities most described in the literature are external ventricular, ventriculoperitoneal, ventriculoatrial and ventriculojugular shunts. There are few descriptions of lumboperitoneal shunts in the literature.

### Goal

Our aim was to describe the case of management of intracranial hypertension secondary to cerebral venous thrombosis with lumboperitoneal shunt.

### Case reports

We report the case of acute management of intracranial hypertension with lumboperitoneal shunt in a young, obese, smoker female patient, who presented with an acute case of intracranial hypertension, with headache, nausea, vomiting, diplopia, papilledema and severe bilateral visual loss (counting fingers less than 1 meter) secondary to extensive venous thrombosis involving the right sigmoid sinus and internal jugular vein.

Upon admission, the patient underwent neuroimaging with study of intracranial vessels (magnetic resonance imaging and magnetic resonance venography) in addition to a diagnostic lumbar puncture – the latter showing an opening pressure greater than 100 cm H<sub>2</sub>O.

The patient received acetazolamide 1000mg every 6 hours until a lumboperitoneal shunt was performed for the acute treatment of intracranial hypertension, followed by the introduction of anticoagulation with enoxaparin.

He presented progressive improvement in his headache and visual symptoms throughout the hospitalization period. Acetazolamide was reduced and discontinued due to mild metabolic acidosis. She was discharged with vitamin K antagonist and was reevaluated after 18 days, without papilledema and with improvement in visual function.

### Discussion

Our patient underwent lumboperitoneal shunt to manage severe intracranial hypertension secondary to cerebral venous thrombosis with good clinical outcome – improvement in papilledema, headache and visual function. More studies are needed to evaluate this shunt modality in the management of intracranial hypertension in these patients.