BLIND EPIDURAL BLOOD-PATCH IN SPONTANEOUS INTRACRANIAL HYPOTENSION WITH MULTIPLE TARLOV CYSTS.

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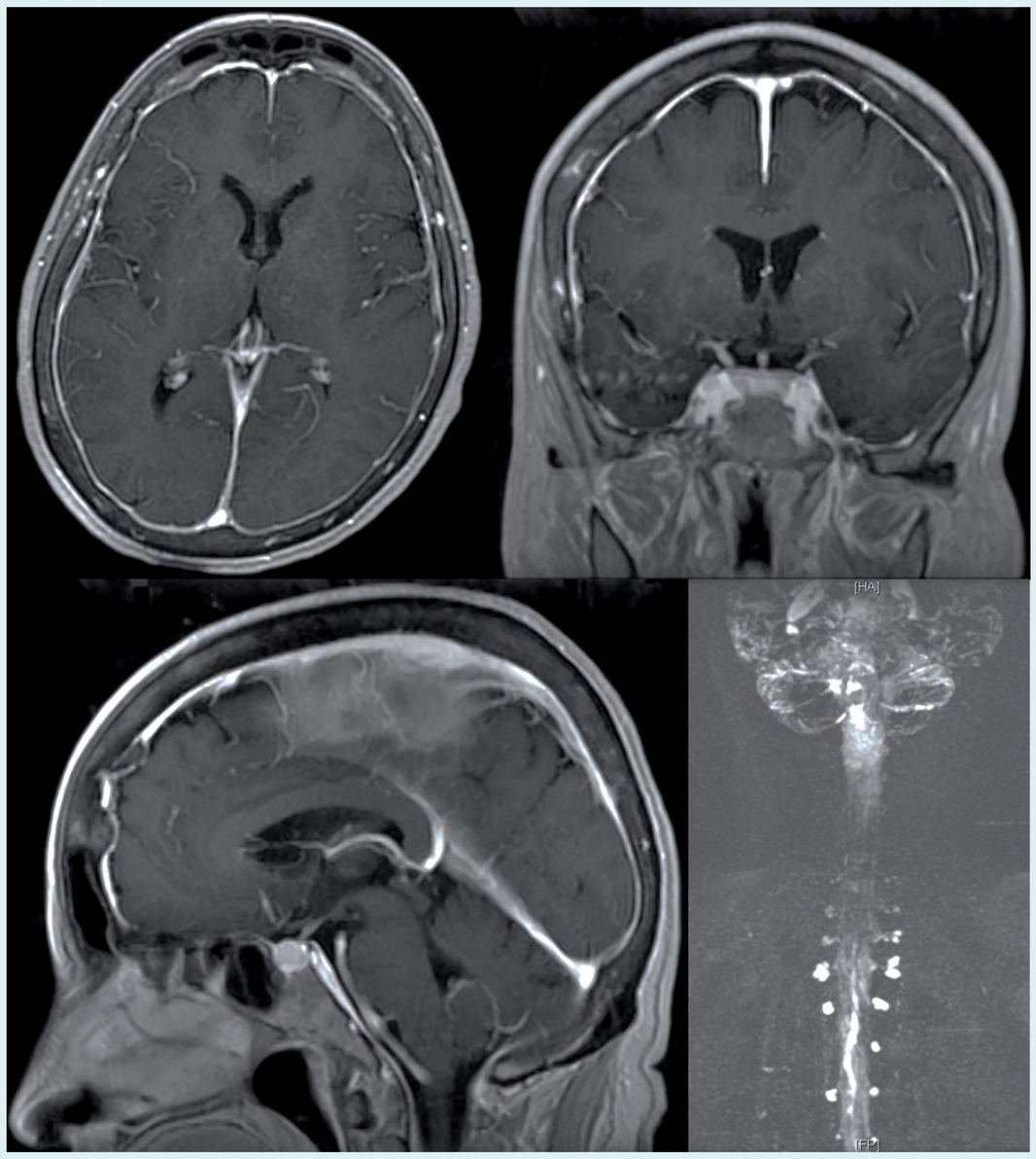
INTRODUCTION: Spontaneous intracranial hypotension (SIH) is a common cause of orthostatic headache. Tarlov cysts are often associated with SIH due to cerebrospinal fluid (CSF) leaks. Epidural Blood Patch (EBP) is a safe and highly effective procedure for patients suffering from SIH by spinal CSF leak.

CASE REPORT: A 65 years old caucasian woman was admitted to neurological unit because of continuous headache. Since young age, she suffered from migraine, responsive to medication. From one year, the headache became daily and lingering and was described as holocephalic pressure sensation, associated with tinnitus and bilateral progressive hearing loss. For few months she had a relief only when lying down. In the same period, she received a diagnosis of colon adenocarcinoma, treated with surgery and chemotherapy. The neurological examination revealed only sixth right nerve palsy. Brain and spinal cord MRI showed diffuse, continuous encephalic dural contrast enhancement associated with gliotic aspecific brain lesions. No evidence of spinal leaks was found, but spinal myelographic scans showed multiple, bilateral thoracic and lumbar Tarlov cysts (**Figure 1**). The CSF analysis showed mild blood brain barrier damage (Qalb $9.2x10^3$); search for common germs, viruses, mycobacterium tubercolosis and malignant cells was negative. Serum IgG4 and autoantibodies were normal. Total body PET-TC did not show pathological FDG-glucose uptake. A diagnosis of SIH was formulated. Bed rest and overhydration were recommended, without benefit. An EBP at lumbar level was performed. 25 mL of autologous blood was injected in epidural space and the patient was kept in Trendelenburg position for 24 hours. The continuous headache and VI palsy were resolved for two months, but after a flu-like episode, headache worsened.

FIGURE 1



A follow-up brain MRI performed three months after EBP showed a thinning and discontinuation of dural enhancement (**Figure 2**). A second EBP was performed with persistent clinical recovery. A follow-up MRI after two month from last EBP was unchanged. After six months from last EBP, MRI showed further improvement (**Figure 3**): the dural enhancement was reduced remarkably whereas dimensions of later ventriculi were increased.

FIGURE 2

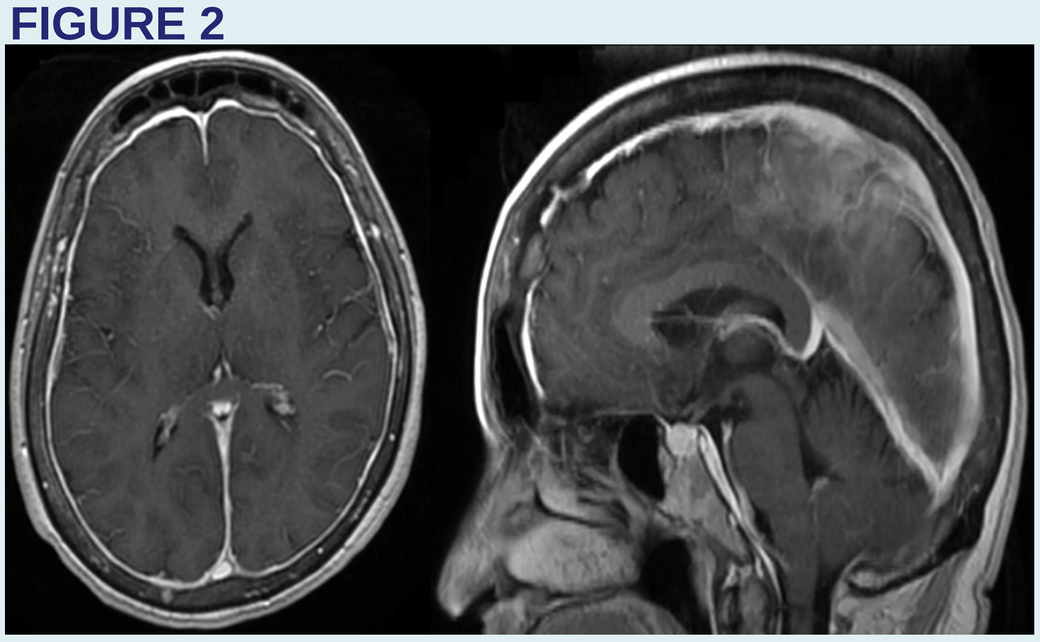
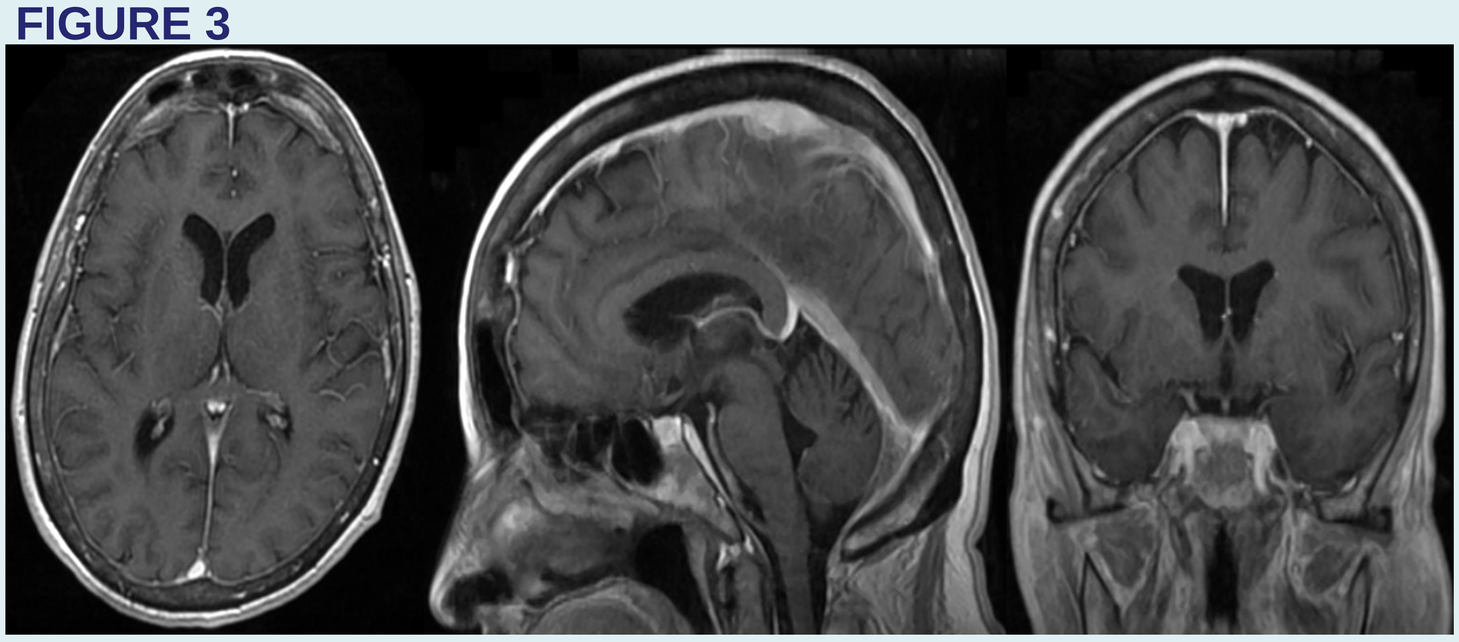


FIGURE 3



CONCLUSIONS: Diagnosis of SIH is laborious, especially in patients with previous history of migraine. EBP must be considered the treatment of choice for SIH when conservative therapies fail, even if CSF leak site is not detected or EBP is performed far from CSF leak site. We were not able to demonstrate CSF leaks, but EBP was clinically effective. In our patient CSF hypovolemia may be explained by a CSF sequestration by Tarlov cysts. The long duration of pre-procedural headache might explain both the need of multiple EBP and the slower improvement of MRI features in comparison to clinical benefit.

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