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CLINICAL INFORMATION

Cerebral venous thrombosis after spinal anesthesia: case report☆

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KEYWORDS
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Abstract
Introduction: Cerebral venous thrombosis (CVT) is a rare but serious complication after spinal anesthesia. It is often related to the presence of predisposing factors, such as pregnancy, puerperium, oral contraceptive use, and malignancies. Headache is the most common symptom. We describe a case of a patient who underwent spinal anesthesia and had postoperative headache complicated with CVT.
Case report: Male patient, 30 years old, ASA 1, who underwent uneventful arthroscopic knee surgery under spinal anesthesia. Forty-eight hours after the procedure, the patient showed frontal, orthostatic headache that improved when positioned supine. Diagnosis of sinusitis was made in the general emergency room, and he received symptomatic medication. In subsequent days, the headache worsened with holocranial location and with little improvement in the supine position. The patient presented with left hemiplegia followed by tonic–clonic seizures. He underwent magnetic resonance venography; diagnosed with CVT. Analysis of procoagulant factors identified the presence of lupus anticoagulant antibody. The patient received anticonvulsants and anticoagulants and was discharged on the eighth day without sequelae.

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Discussion: Any patient presenting with postural headache after spinal anesthesia, which intensifies after a plateau, loses its orthostatic characteristic or become too long, should undergo imaging tests to rule out more serious complications, such as CVT. The loss of cerebrospinal fluid leads to dilation and venous stasis that, coupled with the traction caused by the upright position, can lead to CVT in some patients with prothrombotic conditions.

PALAVRAS-CHAVE
Raquianestesia;
Complicações
cefaleia pós-punção
da dura-máter;
Trombose venosa
cerebral

Trombose venosa cerebral após raquianestesia: relato de caso

Resumo
Introdução: A trombose venosa cerebral (TVC) é uma complicação rara, mas grave, após raquianestesia. Está frequentemente relacionada com a presença de fatores predisponentes, como gestação, puerpério, uso de contraceptivos orais e doenças malignas. O sintoma mais frequente é a cefaleia. Descrevemos um caso de um paciente submetido à raquianestesia que apresentou cefaleia no período pós-operatório complicada com TVC.
Relato de caso: Paciente de 30 anos, ASA 1, submetido à cirurgia de artroscopia de joelho sob raquianestesia, sem intercorrências. Quarenta e oito horas após o procedimento apresentou cefaleia frontal, ortostática, que melhorava com o decúbito. Foi feito diagnóstico de sinusite em pronto socorro geral e recebeu medicação sintomática. Nos dias subsequentes teve pioria da cefaleia, que passou a ter localização holocraniana e mais intensa e com pequena melhora com o decúbito dorsal. Evoluiu com hemiplegia esquerda seguida de convulsões tônico-clônicas generalizadas. Foi submetido à ressonância magnética com venografia que fez o diagnóstico de TVC. A pesquisa para fatores pró-coagulantes identificou a presença de anticorpo lúpico. Recebeu como medicamentos anticonvulsivantes e anticoagulantes e teve alta hospitalar em oito dias, sem sequelas.
Discussão: Qualquer paciente que apresente cefaleia postural após uma raquianestesia, e que intensifica após um platô, perca sua característica ortostática ou se torne muito prolongada, deve ser submetido a exames de imagem para excluir complicações mais sérias como a TVC. A perda de líquido cefalorraquidiano leva à dilatação e à estase venosa, que, associadas à tração provocada pela posição ereta, podem, em alguns pacientes com estados protrombóticos, levar à TVC.

Introduction

Since the first case reported by August Bier in 1898,[1] post-puncture headache has been a problem for patients undergoing dural puncture. In the classical description, the post-dural puncture headache (PDPH) has frontal or occipital location, gets worse with upright position and essentially improves or disappears with the supine position. The onset and duration of PDPH symptoms may be extremely variable, but in most cases they occur within the first 48 h after the puncture and have a self-limiting character, lasting only a few days. In some cases, it may be associated with nausea and vomiting.[1] Various causes have been associated with the onset of PDPH, particularly the needle gauge and tip design. But even with small gauge needles and in experienced hands, PDPH still has an incidence of 0.16–1.3%.[2]

Although the classic description of PDPH has a benign course, it does not always have this favorable outcome, as it may be a symptom associated with more severe complications, although rare. Among these complications, cerebral venous thrombosis (CVT) is a major concern and can be a diagnostic challenge when associated with lumbar puncture.

The objective of this paper is to report the case of a patient who presented with a clinical picture of CVT after spinal anesthesia for orthopedic surgery.

Case report

Male patient, aged 30 years, 82 kg, 1.71 m, fireman, previously healthy, proposed surgery of unilateral knee arthroscopy. The patient had a history of surgery for appendicitis at age 14 and ENT procedure three years ago, with general anesthesia and without complications. He had no comorbidity and the physical examination was normal. The patient was classified as ASA I and subjected to spinal anesthesia applied in L3-4 with Quincke needle tip 27G. Bupivacaine 0.5% hyperbaric (15 mg) was administered. The knee arthroscopy was performed with a tourniquet on the lower limb at the thigh level, with an inflation pressure of 380 mmHg for 40 min (min). The procedure lasted about 1 hour (h), uneventfully. The patient received midazolam