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CLINICAL INFORMATION

Dural Sinus Thrombosis following epidural analgesia for delivery: a clinical case

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Epidural complication;
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Abstract
Background and objectives: Neurological complications of spinal anesthesia are rare conditions. Headache caused by low pressure of the cerebrospinal fluid is one of the most frequent, which occurs after post-dural puncture. A comprehensive history and physical exam must be carried out before making the diagnosis of Post-Dural Puncture Headache (PDPH) and additional tests are necessary to exclude the possibility of developing serious neurological complications such as Dural Sinus Thrombosis (DST). According to the Case Report a differential diagnosis between Dural Sinus Thrombosis with PDPH is discussed.
Case report: A 22 year-old lady, ASA Physical Status Class I was admitted at 39 weeks of gestation for delivery. For labor pain relief she requested epidural for analgesia, but unfortunately accidental dural puncture occurred. She developed an occipital headache and neck pain in the second day postpartum which was both relieved by lying down and supporting treatment such as rehydration, analgesics and caffeine. On day third postpartum she was discharged without complaints. On day fifth postpartum the pain returned and became more intense and less responsive to oral analgesics. She was admitted to the hospital to do a complete neurological and imagiologic investigation that showed a lesion consistent with the diagnosis of cortical vein thrombosis and Dural Sinus Thrombosis (DST). She was treated with oral anticoagulants. After two days a repeat MRI showed partial canalization of the central sinus thrombus. The patient was discharged from hospital five days after her admission without any initial symptoms.
Conclusion: The report describes a patient who developed severe headache following continuous epidural analgesia for delivery. Initially it was diagnosed as PDPH, however with the aid of Magnet Resonance Imaging (MRI) the diagnosis of DST was later established and treated. DST is a rare condition and is often underdiagnosed. Because of its potentially lethal complications, it should always be considered in acute headache differential diagnosis.

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PALAVRAS-CHAVE
Complicação epidural;
Cefaleia pós-punção dural;
Trombose de seios durais

Trombose de seios durais após analgesia peridural para parto: caso clínico

Resumo
Justificativa e objetivos: As complicações neurológicas da raquianestesia são condições raras. A dor de cabeça causada pela baixa pressão do fluido cerebrospinal é uma das mais frequentes que ocorre após a punção dural. Anamnese completa e exame físico geral devem ser realizados antes de fazer o diagnóstico de cefaleia pós-punção dural (CPPD) e testes adicionais são necessárias para excluir a possibilidade complicações neurológicas graves, como trombose de seis durais (TSD). De acordo com o relato do caso, discutiremos o diagnóstico diferencial entre TSD e CPPD.
Relato de caso: paciente de 22 anos, estado físico ASA I, foi admitida às 39 semanas de gestação para o parto. Para alívio da dor do trabalho de parto, a paciente solicitou analgesia peridural, mas infelizmente uma punção dural acidental ocorreu. A paciente desenvolveu dor de cabeça occipital e dor cervical no segundo dia pós-parto — ambas aliviadas com repouso e tratamento adjunto, como reidratação, analgésicos e cafeína. No terceiro dia pós-parto, a paciente recebeu alta sem queixas. No quinto dia pós-parto, a dor retornou e ficou mais intensa e menos sensível a analgésicos orais. A paciente foi admitida no hospital para fazer um exame neurológico e imagiologia que mostrou uma lesão compatível com o diagnóstico de trombose venosa cortical e TSD. A paciente foi tratada com anticoagulantes orais. Após dois dias, a repetição de RM mostrou canalização parcial de trombo do seio central. A paciente recebeu alta hospitalar cinco dias após a admissão, sem quaisquer sintomas iniciais.
Conclusão: O relato descreve o caso de uma paciente que desenvolveu dor de cabeça grave após analgesia peridural contínua para o parto. Inicialmente, o diagnóstico foi de CPPD, mas com o auxílio da ressonância nuclear magnética (RNM) o diagnóstico de TSD foi posteriormente estabelecido e tratado. TSD é uma condição rara e, muitas vezes, subdiagnosticada. Devido a suas complicações potencialmente letais, essa condição deve sempre ser considerada no diagnóstico diferencial de dor de cabeça aguda.

Introduction

The use of epidural analgesia (EP) to provide pain relief for labor and delivery has become increasingly popular. During the placement of an epidural needle or the catheter, recognizable inadvertent dural puncture may occur in 0.5–10% of the cases depending on the experience of the anesthetist.[1] On the other hand, unrecognized dural puncture occurs in about 1.5% of cases.[2] Thus it is not uncommon for a patient to develop a persistent postpartum headache following epidural analgesia. Before treating the headache in such patients one has to consider other conditions which can also produce headache. This report describes a patient whose headache was thought to be a spinal headache; however, the cause of her headache was subsequently diagnosed as Dural Sinus Thrombosis (DST).

Case report

A 22 year-old lady, first pregnancy, ASA Physical Status Class I was admitted at 39 weeks of gestation for delivery. The antenatal period, physical examination and blood pressure were normal. For labor pain relief she requested EP for analgesia. Under sterile conditions, using the loss of resistance technique, a 17 Tuohy epidural needle was inserted into L4–L5 interspace. Unfortunately, accidental dural puncture occurred. The needle was removed and replaced in the L3–L4 interspace where the epidural catheter remained successfully. A 10 mL bolus dose of Ropivacaine 2 mg/mL (20 mg) was administered with no untoward effects. Shortly after she progressed to the second stage of labor and had a spontaneous vaginal delivery of a healthy baby.

She remained well after delivery and continued to do so for the next 24 h. However, on the second day postpartum, she developed an occipital headache and neck pain, which were both relieved by lying down. Conservative treatment with bed rest, analgesics and i.v. fluid administration to prevent dehydration were advised, but she did not remain in bed and walked frequently. On day third postpartum she was discharged without complaints.

She rested five days at home, but the pain returned and became more intense and less responsive to oral analgesics. She presented to the emergency room complaining of occipital and parietal headache, nausea and sometimes vomiting. The pain became worse on standing up. Sometimes it began at the occipital region and also left side of the skull. She also complained of right arm weakness and some paresthesia and jerky movements. She was admitted to the hospital on the Stroke Unit to do a complete neurological and imagiologic investigation and other analysis. There was no focal papilledema and the CT scan was normal. However, an Electroencephalogram (EEG) revealed focal slowing in the left parietal region. Further

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