Subdural Hemorrhage and Cortical Vein Thrombosis after Uneventful Epidural Placement

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While cerebral venous thrombosis is rare, there have been several reports in relation to accidental dural puncture following epidural anesthesia. Similarly, the incidence of a subdural hemorrhage following accidental dural puncture has also been described. We present the case of a patient with an uneventful epidural placement that was found to have a subdural hemorrhage and cortical vein thrombosis.

The subject is a 23-year-old gravida 2 para 0 aborta 1 at 39 4/7 weeks gestation who underwent successful placement of a continuous lumbar epidural catheter. Her medical history was significant only for oral contraceptive usage and a family history of thromboembolism. One day prior to delivery, she was noted to be hypertensive (137/97) and ruled out for preeclampsia. Labor and delivery were uneventful. On post-delivery day (PD) 1, she complained of a non-positional severe frontal headache, relieved by non steroidal anti-inflammatory drugs (NSAID). On PD 2, the headache recurred and the patient was discharged on NSAID therapy. On PD 3, she returned to the hospital complaining of an unrelenting positional headache associated with nausea and vomiting. A computed tomography (CT) scan showed a right frontoparietooccipital subdural hemorrhage. On PD 4, she developed a grand mal seizure. A CT angiogram showed thrombosis of several bilateral cortical veins with a surrounding hemorrhagic infarction; the subdural hemorrhage was stable. Later on PD 4, she had another seizure. A CT scan showed increasing cerebral edema with basal cistern effacement along with a 5 mm right-to-left shift of the midline; progression of the hemolytic venous infarction was also seen. Intravenous phenytoin was begun. Laboratory studies revealed a thrombophilia, particularly prothrombin variant 20210 and Factor V Leiden, increased warfarin sensitivity, and a positive anti-nucleotide antibody with a speckled pattern. Low dose subcutaneous heparin was initiated. An epidural blood patch (EBP) was placed to treat her headache pain and provided her with significant relief. Following the EBP, enoxaparin therapy was initiated and planned to continue for at least 6 months.
