Severe adhesive arachnoiditis resulting in progressive paraplegia following obstetric spinal anaesthesia: A case report and review

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A 27-year-old woman developed severe adhesive arachnoiditis after an obstetric spinal anaesthetic with bupivacaine and fentanyl, complicated by back pain and headache. No other precipitating cause could be identified. She presented one week postpartum with communicating hydrocephalus and syringomyelia and underwent ventriculoperitoneal shunting and foramen magnum decompression. Two months later, she developed rapid, progressive paraplegia and sphincter dysfunction. Attempted treatments included exploratory laminectomy, external drainage of the syrinx and intravenous steroids, but these were unsuccessful and the patient remains significantly disabled 21 months later. We discuss the pathophysiology of adhesive arachnoiditis following central neuraxial anaesthesia and possible causative factors, including contamination of the injectate, intrathecal blood and local anaesthetic neurotoxicity, with reference to other published cases. In the absence of more conclusive data, practitioners of central neuraxial anaesthesia can only continue to ensure meticulous, aseptic, atraumatic technique and avoid all potential sources of contamination. It seems appropriate to discuss with patients the possibility of delayed, permanent neurological deficit while taking informed consent.

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