Subarachnoid Hemorrhage Associated with an Intrathecal Catheter: Case Report

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Patient History
• 61 y/o woman with an intrathecal morphine pump for failed back syndrome presented with recurrent pain and intermittent loss of consciousness
• Evaluation showed the catheter extended into the prepontine space

Patient History
• Presented with sudden onset of a severe headache at 69 y/o
• Head CT revealed perimesencephalic subarachnoid hemorrhage
• Left partial cranial nerve III palsy (non reactive pupil)
• Negative CT angiography, four-vessel catheter angiography, and MRI
Non-aneurysmal subarachnoid hemorrhage

- No identifiable cause in 15 to 20% of subarachnoid hemorrhage cases
- Perimesencephalic pattern is common
- Rupture of small vein or capillary, intramural basilar artery dissection, arteriovenous malformations

Catheter Migration

- Uncommon complication of intrathecal drug delivery systems
- CSF flow currents may cause upward migration of catheter components
- Neurologic symptoms, pain, nausea and vomiting, direct parenchymal injury, and subarachnoid hemorrhage

Conclusions

- Intrathecal catheters may cause vascular injury
- Nonaneurysmal perimesencephalic subarachnoid hemorrhage may be due to injury of small blood vessels

References