Cervical subarachnoid floating cavernous malformation presenting with recurrent subarachnoid haemorrhage

A 61 year old man was admitted to our department due to recurrent episodes of subarachnoid haemorrhage (SAH). He had been previously healthy except for a 10 year history of hypertension. One year ago, SAH had occurred but four vessel cerebral angiography showed no cause of SAH. One month ago, an intradural extramedullary (IDEM) lesion was detected due to right posterior auricular pain (fig 1A). On admission, even though brain computed tomography did not detect SAH, lumbar tapping showed SAH. Because, four vessel cerebral angiography demonstrated no evidence of vascular abnormalities, we explored cervical lesion. At surgery, a deep violet floating strawberry-like lesion was found above dorsal surface of spinal cord and was attached to the cord with a vascular pedicle (fig 1B). The lesion was removed en bloc without postoperative neurologic deficit. Pathologic examination revealed a cavernous malformation and an old haemorrhage. Dilated vascular channel lined by endothelial cells without intervening brain parenchyma suggests cavernous malformation rather than arteriovenous malformation (fig 2).

Recurrent SAH caused by a cervical IDEM cavernous malformation is extremely rare and only one case has been reported till now. To the best of our knowledge, the present case is only the second reported case.

Acknowledgements
This study was supported in part by a research grant from the Seoul National University Hospital.

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Figure 1 T1 Sagittal magnetic resonance image shows a mass which is exophytically located on the dorsal surface of the cervical spinal cord. This mass shows peripheral enhancement and no centrally enhancing region, which suggests haemorrhage (A). Intraoperative imaging obtained after C1–2 laminectomy and dural incision (B).

Figure 2 Pathological features: closely apposed dilated vascular channels are lined by endothelial cells and there are little thickened collagenous walls. Haemosiderin laden macrophages (arrow) which suggest an old haemorrhage are showing. Haematoxylin and eosin, original magnification x 400.

References