

Teaching NeuroImages: Cerebrospinal fluid leakage observed from skin after acupuncture

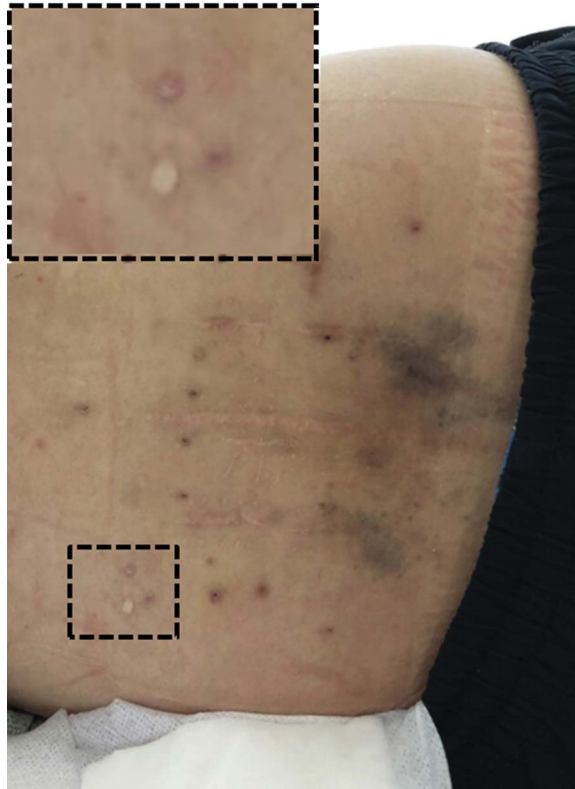
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Figure 1 CSF drops at low back



CSF, as water drops, was observed from the left lumbar skin, most prominently in the morning and at the left lateral decubitus position.

Acupuncture is widely used in Asian countries. A 27-year-old man visited our center with a newly developed orthostatic headache. A few weeks previously, he had undergone multiple and repetitive acupunctures at the low back (L3-S1) to relieve pain, which remained after laminectomy and interbody fusion (L4-S1) for the last few years. CSF drops were observed from the skin at the left low back (figure 1). Brain MRI was normal. CSF leakage with fistula formation was confirmed by magnetic resonance myelography (figure 2).¹ Duroplasty (L4-5) with primary suture of the fistula was performed and the headache improved.

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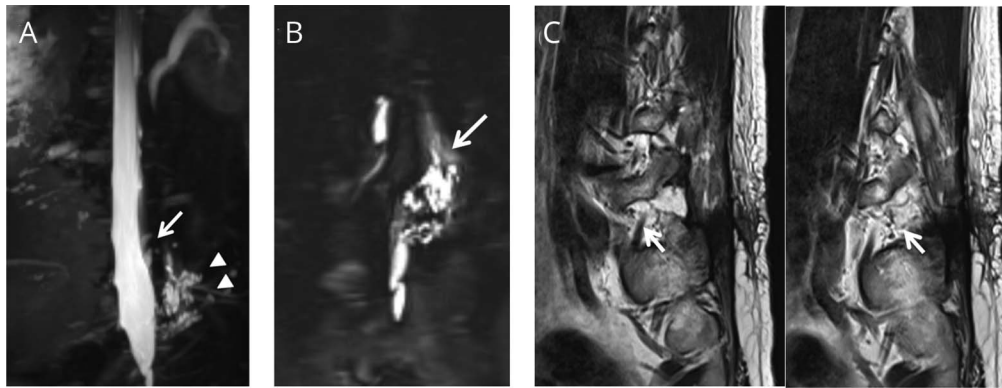
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Figure 2 Fistula formation and CSF leakage confirmed on imaging



CSF leakage (left L3-4-5 area; arrow) and abnormal fluid collection (along the left paraspinal muscle; arrowhead) was observed (A). A fistula formation (arrow) between neural foramen and abnormal fluid collection was observed at the laminectomy site (A, B, magnetic resonance myelography; C, T2-weighted image).

Appendix Authors

Name	Location	Role	Contribution
Sang-Mi Noh, MD	St. Vincent's Hospital, School of Medicine, The Catholic University of Korea, Suwon	Author	Drafting the manuscript content, establishing the concept of report
Kyung Mi Lee, MD	Kyung Hee University Hospital, Seoul, Korea	Author	Revising the manuscript, describing the imaging findings, establishing the concept of report
Bum Joon Kim, MD, PhD	Kyung Hee University Hospital, Seoul, Korea	Author	Supervising and revising the manuscript, establishing the concept of report, designing the report

Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

Reference

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