Successful treatment of subarachnoid-pleural fistula using pericardial

fat pad and fibrin glue after chest wall resection for lung cancer.

Authors: Shimizu K., Otarii Y., Ibe T., Kawashima O., Kamiyoshihara M., Morishita Y.

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Abstract:

A 46-year-old male underwent a right adrenalectomy and a left upper lobectomy with an en-block

resection of the involved chest wall. The proximal rib resections (third and fourth ribs) were

performed at the costvertebral joints. Hemorrhage occurred from near the 3rd intervertebral

foramen. The bleeding site was packed with oxycellulose to control the bleeding. Two hours after

the operation, the patient complained of paraplegia due to spinal cord compression caused by

swollen oxycellulose. An emergency operation was performed. The oxycellulose was carefully

removed from the intervertebral foramen. Cerebrospinal fluid was exudated from the spinal canal,

however, suggesting an iatrogenic subarachnoid-pleural fistula (ISPF). Autologous fat fragments

individually combined with fibrin glue, was packed gently into the intervertebral foramen. The orifice

of the foramen was then covered with a pericardial fat pad. The postoperative course was

uneventful. This new technique is a direct and effective treatment for an ISPF.