Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/ Adverse Event Information

Medical Safety Information

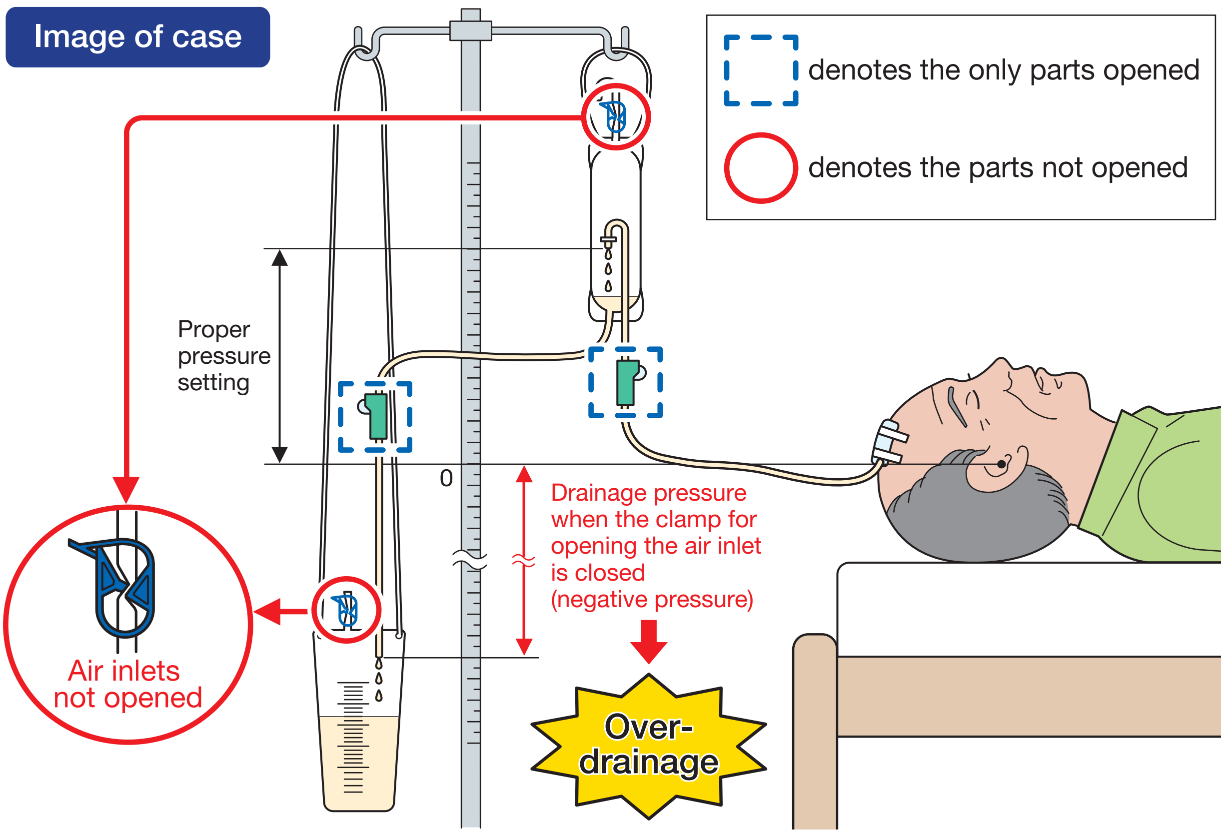
No.83, October 2013

Failure to Reopen All Clamps on a Cerebrospinal Fluid Drainage Circuit

Five cases have been reported involving the failure to open the air inlet when opening the clamp on a cerebrospinal fluid drainage circuit (information collection period: from January 1, 2009 to July 31, 2013; the information is partly included in “Individual Theme Review” (p.136) in the 32nd Quarterly Report).

Cases in which failure to open the air inlet when opening the clamp on a cerebrospinal fluid drainage circuit created negative pressure, leading to over-drainage, have been reported.

Image of case



◆ The term cerebrospinal fluid drainage circuit refers to the drainage circuit and drainage bag.

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Case 1

Nurse A closed the four clamps on the cerebrospinal fluid drainage circuit before changing the patient's position. Nurse A and Nurse B then changed the patient's position. Nurse B subsequently opened only two of the clamps on the cerebrospinal fluid drainage circuit (one on the patient's side and one on the drain side) and did not check the two clamps for opening the air inlets. An hour later, the patient's blood pressure reached the 200mmHg mark and 200mL of bloody discharge emerged.

Case 2

When transferring a patient undergoing cerebrospinal fluid drainage to another ward, Nurse A closed the four clamps on the cerebrospinal fluid drainage circuit and took the patient to the other ward, accompanied by the attending physician from the gastrointestinal surgery department. At the new ward, Nurse B set the pressure without checking the drainage circuit with Nurse A, and opened only two of the clamps on the drainage circuit (one on the patient's side and one on the drain side). The patient subsequently suffered facial seizures, his/her blood pressure reached the 200mmHg mark, and 150mL of discharge emerged. When a neurosurgeon examined the patient, it was discovered that the clamps for opening the air inlets had not been opened.

Preventive measures taken at the medical institutions in which the events occurred.

- **Education will be provided regarding cerebrospinal fluid drainage circuit principles and management methods.**
- **A checklist will be used to carry out checks when closing and opening the clamps on cerebrospinal fluid drainage circuits.**

* As part of the Project to Collect Medical Near-Miss/Adverse Event Information (a Ministry of Health, Labour and Welfare grant project), this medical safety information was prepared based on the cases collected in the Project as well as on opinions of the “Comprehensive Evaluation Panel” to prevent the occurrence and recurrence of medical adverse events. See quarterly reports and annual reports posted on the Japan Council for Quality Health Care website for details of the Project.
http://www.med-safe.jp/

* Accuracy of information was ensured at the time of preparation but cannot be guaranteed in the future.

* This information is intended neither to limit the discretion of healthcare providers nor to impose certain obligations or responsibilities on them.

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