Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/Adverse Event Information

Medical Safety Information

No.153, August 2019

Gauze Remaining After Surgery (2)
—Checking the X-ray Image—

In 43 of the 57 cases highlighted in Medical Safety Information No.152 “Gauze Remaining After Surgery (1) —Gauze Count—” (July 2019), an X-ray was taken when the operation ended. In 26 of these cases, medical staff were unable to find the gauze on the X-ray image (information collection period: from January 1, 2016 to March 31, 2019). This information was compiled on the basis of the content featured in “Recurrence of Events and Occurrence of Similar Events” in the 54th Quarterly Reports.

In most of the cases in which the gauze could not be found in the X-ray image taken at the end of the operation, the gauze count before closing matched.

Count Before Closing	Was Gauze Found in X-ray Image Taken at End of Operation?	
	Found	Unable to Find
Matched	10	24
Did Not Match	7	2
Number of Cases	17	26

Main Background Factors in Inability to Find on the X-ray Image
The count matched, so the X-ray image was checked on the assumption that there was no gauze remaining
The gauze sponge overlapped with a bone
Checks focused on the drain and tube inserted
Hard to check the X-ray image, because the screen was small
The X-ray image did not include the area in which the gauze sponge had been left

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Case 1

The physician performed an emergency cesarean section. The gauze and Mikulicz gauze counts matched, so the physician closed the abdomen and ended the operation. After taking the X-ray image at the end of the operation, the physician checked the image on the understanding that the count matched and did not notice the gauze sponge shown to be overlapping with the spine. The patient subsequently developed symptoms of ileus, so a CT examination was carried out. The CT image gave rise to suspicions that gauze remained inside the body, so an exploratory laparotomy was performed and a Mikulicz gauze was found.

Case 2

When heart surgery was performed, the gauze count matched, so the physician closed the chest and ended the operation. A gauze sponge showed up on the X-ray image taken at the end of the operation, but it overlapped with the sternum, so the physician did not notice the gauze sponge. The gauze sponge was spotted inside the patient during a cardiac catheterization before discharge.

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

- **When checking X-ray images, be aware of the possibility that there might still be gauze remaining even if the gauze count matches.**
- **Use large-screen monitors and adjust the contrast when checking X-ray images.**
- **Consider introducing gauze sponges that are easy to identify on X-ray images.**

* 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 the Project website for details.
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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