

**Abstract Type : Poster**  
**Presentation No. : PFL 006**

## **A Case Report of Hypercalcemia and Mucosal Injury after Calcium Chloride Intoxification**

**Kwang-Ho Choi**, Hyunsuk Kim, Kwang-Eun Sim, Jung-Hoon Lee, Chang-Suk Bang, Jong-Woo Yoon  
Department of Internal Medicine, Chuncheon Sacred Heart Hospital, Korea, Republic of

### **Case Study:**

Calcium chloride is a substance that is used for medical purposes as it is known to be relatively less harmful. However, it is an alkali solution that can cause severe damage to skin and mucous membrane. In general, taking calcium chloride does not cause severe electrolyte abnormalities when the skin barrier is intact, but it can lead to dangerous hypercalcemia if accompanied by skin injury. Herein, we reported a case of gastrointestinal mucosal damage and subsequent severe hypercalcemia after ingestion of calcium chloride.

A 53-year-old woman who did not have any underlying disease took about half a cup of calcium chloride, which was used to shovel the snow, for the purpose of committing a suicide. She vomited 5 to 6 times after taking it and spitted out blood 3 to 4 times accompanied with nausea and abdominal pain. The patient's consciousness was not deteriorated. In the laboratory findings, severe hypercalcemia of 18.0 mg/dL was observed. Bisphosphonate and calcitonin were administered with massive normal saline hydration. Calcium, magnesium, electrolytes, and electrocardiography were monitored, and as the patient complained of persistent abdominal pain, nausea, and vomiting, peripheral nutrition was maintained at the fasting state. On esophagogastroduodenoscopy, multiple gastric ulcers were found, and the endoscopy was performed once a week to check if the patient could start a meal. After the patient's recovery was confirmed at week 2, she began eating and was discharged without complications.

It is interesting that although calcium chloride is known to be a relatively less harmful substance, it caused mucosal injury in the stomach and then was absorbed into the body and caused hypercalcemia. Fortunately, the patient recovered quickly without facing any crisis due to hypercalcemia or other complications, which was probably because of the early visit to the hospital and proper management after taking calcium chloride.

Figure 1. Computed Tomography taken after admission: There is a finding with which ulcer perforation can be suspected



Figure 2A. EGD performed 2 days after admission; Figure 2B. EGD performed 9 days after admission

