

## Original Articles

# Upper Gastrointestinal Caustic Injury in Children

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**Objective:** We reviewed our experience and analyzed the outcome of upper gastrointestinal (UGI) caustic injury in children treated at our institute.

**Methods:** From June 1983 to October 2005, a total of 89 children (50 boys and 39 girls) with caustic injuries treated at our institute were reviewed with medical records, including initial management, operative data, postoperative course and follow-up data. Patients with esophageal strictures who refused treatment were excluded. Mean age was 2.87 years old (ranging from 6 m/o to 13.2 y/o).

**Results:** Seventy-four (83%) of them accidentally swallowed alkali corrosives, and the other 15 (17%) accidentally swallowed acid substances. Forty-eight patients had no sequelae, 39 patients had esophageal stricture and 2 had prepyloric obstruction. The mean follow-up period was 21.1 months (ranging from 2 weeks to 17.4 years). Esophageal bougienage alone (21 patients, 51.2%), segmental resection of the esophagus and anastomosis (3 patients, 7.3%), segmental resection of the esophagus and anastomosis with subsequent reconstruction of the esophagus (2 patients, 4.9%), reconstruction of the esophagus (13 patients, 31.7%) and Billroth I procedure (2 patients, 4.9%) were performed according to late clinical presentations. At present, 36 patients (87.8%) are free of symptoms, and 5 patients are still receiving periodic esophageal dilatation.

**Conclusion:** In our patients with UGI caustic injury, those with sequelae of esophageal stricture had a good prognosis either by esophageal dilatation alone or esophageal reconstruction.

**Key words:** caustic injury, esophageal strictures, bougienage, reconstruction

According to the annual report of the American Association of Poison Control Center, poisoning in children makes up over half of all announced poisoning events.<sup>1</sup> Poison ingestion in children generally has less severe sequelae than in adolescents and adults who can use it to commit suicide; however, the ingestion of caustic agents by children is an exception.<sup>1,2</sup> In mid-Taiwan, most caustic accidents in children involve alkali, dumpling alkaline oil, which causes more damage to the esophagus

than to the stomach. We report our experience and analyze the outcome of caustic injuries in children treated at our institute over the past 22 years.

## Materials and Methods

From June 1983 to October 2005, a total of 89 children with caustic injuries treated at our institute were

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