

# 使用內視鏡來評估腐蝕性傷害的預後

## Predicting the outcome of caustic injury by modified endoscopic parameter

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**Background:** The ingestion of corrosive agents can cause extensive damage to the gastrointestinal tract. In the acute state, the damage may be so severe that perforation of the esophagus and the stomach as well as death can ensue. Long-term complications included upper gastrointestinal strictures, such as esophageal stricture (ES) and gastric outlet obstruction (GOO). The purpose of the present study was to investigate the factors influencing clinical outcome of patients after corrosive injury.

**Materials and Methods:** From July 2000 to October 2007, total 108 patients of ingesting corrosive substance admitted to our hospital were retrospectively reviewed. EGD was performed within 48 hours after the corrosive substance ingested. The mucosal burns were graded according to the severity of injury, and extent of damage over esophagus, stomach and duodenum. Information such as the kind of corrosive ingested, early endoscopic findings, hospital course and clinical outcome were analyzed.

**Result:** Ninety-three patients (43 men and 50 women) with average age of 49.6 years (range 18 to 86). Eighty patients had ingested acids and 13 had ingested alkalis. The case number of Grade III injury was 37 (39.8%) in esophagus, 50 (53.8%) in stomach and 7 (9.7%) in duodenum. Ten patients (10.8%) died at the acute stage due to gastrointestinal tract perforation, aspiration pneumonia, and respiratory failure or sepsis. Thirty-one patients developed intake problems including ES alone in 17 (20.2%) patients, GOO alone in 6 (7.1%), and combination of ES and GOO in 8 (9.5%). Multivariate analysis revealed that only age  $\geq 60$  years (OR 4.725,  $p=0.029$ ) was the independent risk factor for mortality after corrosive injury of GI tract.

Multivariate analysis revealed that only Grade III injury of esophagus (OR 3.079,  $p=0.039$ ) was the independent risk factor for ES. Multivariate analysis revealed that Grade III injury of stomach (OR 18.972,  $p=0.007$ ) was the only independent risk for GOO but a trend of significance was observed for grade III injury of duodenum (OR 3.805,  $p=0.053$ ) for predicting GOO.

**Conclusions:** Age  $\geq 60$  years was the independent risk factor for mortality after corrosive injury of GI tract. Grade III injury of esophagus was the independent risk factor for development of ES. Grade III injury of stomach was the independent risk factor for development GOO.