The Minimal Invasive Treatment of Esophageal Perforation

김기훈 • 서검석 • 김용성 • 최창수 • 임종주 • 안용환 • 양봉준 • 최석채
원광대학교 의과대학 내과학교실, 소화기질환연구소

Aims & Methods: The aim of this study was to review our 10-year experience of esophageal perforation treated in our tertiary university hospital, and to evaluate the outcomes of endoscopic treatment with endoclips for esophageal perforations. We retrospectively reviewed the medical records of 29 patients treated for esophageal perforation between January 1999 to December 2008.

RESULTS: There were 20 male (69%) and 9 female (31%) with a mean age of 60 (range 30∼93). The etiology of perforations were 19 foreign body (65.5%), 6 Boerhaave’s syndrome (20.7%), 2 iatrogenic (7%) and 2 of unknown cause (7%). The location of esophageal perforation was 12 upper esophagus (41.4%), 9 mid (31%) and 8 lower (27.6%). The mean size of perforation was 2.57 cm (range 0.5∼13 cm). Sixteen patients were managed surgically (11 primary repair and 5 esophagectomy) and 13 were treated non-operatively (4 conservative and 9 endoscopic clip application). Seven patients (44%) had postoperative complications (1 atelectasis, 1 vocal cord injury, 2 esophageal narrowing without symptoms, 1 hemothorax, 1 pneumothorax and 1 pneumonia with UGI bleeding), but the patients treated with endoscopic clip application had no complications. There were three deaths; one patient of them was treated conservatively and two were treated with primary repair. The overall mortality rate of esophageal perforation was 10.3% (3/29). The perforation was successfully closed with endoscopic clip application in the 9 patients. Two patients failed endoscopic clip application were treated surgically. The success rate of clip application was 82% (9/11). Hospital stay was significantly shorter in the patients treated with endoscopic clip application than in those treated surgically (11.1 days vs. 44.6 days, p=0.027).

Conclusion: The endoscopic clip application for esophageal perforations shortens the duration of hospital stay and it is safe without any complications or increasing mortality rates.