

FA06.03: Correlation between findings of timed barium esophagogram and post-operative symptoms in patients with achalasia

Se Ryung Yamamoto¹, Fumiaki Yano¹, Kazuto Tsuboi¹, Masato Hoshino¹, Shunsuke Akimoto², Takahiro Masuda¹, Katsunori Nishikawa¹, Norio Mitsumori¹, Nobuo Omura³, Hideyuki Kashiwagi⁴, Katsuhiko Yanaga⁵

¹The Jikei University School of Medicine, Tokyo/JAPAN, ²Creighton University Medical Center, Omaha/NE/UNITED STATES OF AMERICA, ³Nishisaitama-Chuo National Hospital, Saitama/JAPAN, ⁴Fuji City General Hospital, Shizuoka/JAPAN, ⁵The Jikei University, Tokyo/JAPAN

Background: Timed barium esophagogram (TBE) have been used to evaluate the severity of achalasia. The aim of this study was to investigate correlation between findings of TBE and post-operative symptoms in achalasia patients.

Methods: A retrospective study of a prospectively maintained database was conducted to identify patients who underwent primary surgery for achalasia and TBE before and after surgery between May 2006 and April 2015. Patients who had previous foregut surgeries were excluded. Pre- and post-operative symptoms were evaluated using a standard questionnaire. TBE was performed before and at least three months after surgery and the height and width of the barium column at 1, 2, and 5 min were measured.

Results: Three hundred seventeen patients met the criteria (mean age of 45.6 ± 18.2 years, 158 female) and the mean follow-up period was 35.5 ± 27 months. Both dysphagia and chest pain improved significantly after surgery ($p < 0.001$ each). Dysphagia was not resolved completely in 187 patients (59%) and chest pain in 129 patients (41%). Complete clearance on TBE after surgery was seen in 107 patients (34%) at 1 min, 139 patients (44%) at 2min and 62 patients (51%) at 5min. There was a negative correlation between persistent dysphagia and CC at 1min on TBE ($p=0.02$). No significant correlation was identified between chest pain and CC on TBE. On univariate analysis, significant correlations was identified between age, morphology and severity of dilatation, and CC at 1min on TBE after surgery ($p=0.037$, 0.001 and 0.024, respectively). On multivariate analysis, significant correlation was found between morphology and CC at 1min on TBE after surgery (odds ratio=0.29; 95% CI, 0.11-0.72; $p=0.008$).

Discussion: Persistent dysphagia positively associated with CC at 1min on TBE after surgery, while no significant correlation was identified in chest pain.

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