Factors associated with management and negative outcomes of esophageal perforation

Factores asociados al manejo y desenlaces negativos de la perforación esofágica

Dear Editor,

We have read with particular interest the article by García-Moreno et al. titled ''Treatment of esophageal perforation: A review of our experience at a tertiary referral hospital spanning the past 19 years'', in which the authors conclude that the main survival predictor in esophageal perforation is the time interval between the esophageal injury and its diagnosis.[1]

Sohda et al. point out that, to reduce the mortality rate in those patients, from the time of diagnosis, treatment should be started within the first 20 h. However, other authors have argued that death is independent from the amount of time that elapses from the injury to the start of treatment.[2]

García-Moreno et al. state that the decision to perform surgery or not is based on the Cameron criteria.[1] In its guidelines on esophageal emergencies, the World Journal of Emergency Surgery[3] includes the Pittsburgh classification, which through clinical and radiologic factors, suggests the management to be utilized. Patients whose severity score is ≤ 2 points could be eligible for nonsurgical treatment. Even though time to diagnosis above 24 h is among the variables in said scoring system, the presence of hypotension or a personal history of cancer is given a higher score. In addition, the severity score appears to be of more value when applied to the subgroup of patients with Boerhaave's perforations.[4]

A meta-analysis of data from individual patients[5] evaluated whether the time interval from perforation onset to diagnosis was associated with the clinical result in patients with iatrogenic esophageal perforation or Boerhaave's syndrome. Early diagnosis of those two types of perforation was found to have no statistically significant association with a lower mortality rate, with respect to late diagnosis; only the combined results of the two esophageal perforations showed a 6% decrease in mortality within 12 to 24 h after diagnosis. Nevertheless, the authors underlined that the pooled results could not be transferred to clinical practice, given the different conditions they involve, and that by establishing the time from diagnosis as an independent risk factor for mortality in a multivariate analysis, the adjustment carried out by the treatment center, as well as other factors, could confound the results.

In conclusion, in patients with esophageal perforation, an individualized and timely initial focus will have better cost-effective results and improved morbidity and mortality outcomes. Further studies need to be conducted, characterizing populations that can be extrapolated to samples with similar features and that can control possible limitations, such as study design, sample size, and perforation heterogeneity. In this manner, risk associations, outcome predictions, and useful recommendations for decision-making in medical-surgical practice can be specified.

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Conflict of interest

The authors declare that there is no conflict of interest.

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