Research Article

Endoscopic Submucosal Dissection Outcomes for Gastroesophageal Tumors in Low Volume Units: A Multicenter Survey

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Background and Aims. Endoscopic submucosal dissection (ESD) outcomes have traditionally been reported from high volume centers in East Asia. Data from low volume centers in other parts of Asia remain sparse.

Methods. A retrospective survey with a structured questionnaire of 5 tertiary centers in 3 countries in South East Asia was conducted. Details of training and clinical outcomes of ESD cases, with follow-up data from these centers, were analyzed.

Results. Seven endoscopists from the 5 centers performed a total of 35 cases of ESD in the upper gastrointestinal tract (UGIT) over a 6-year duration. Details of the lesions excised were as follows: median size was 20 mm, morphologically 20 (68.6%) were flat/depressed and 6 (17.1%) were submucosal, and histologically 27 (77.1%) were neoplastic. The median duration of ESD procedures was 105 minutes, with an en-bloc resection rate of 91.4%. There was 1 (2.9%) case of delayed bleeding, but no perforation or mortality in any of the cases. The recurrence rate after ESD was 5.7%. A prolonged ESD duration was influenced by a larger size of lesion (25 mm, p = 0.02) but not by factors related to the training experience of endoscopists.

Conclusions. ESD in the UGIT is feasible and safe in low volume centers in Asia.

1. Introduction

Endoscopic resection is the least invasive and cost-effective way of treating superficial malignant lesions in the digestive tract. Endoscopic submucosal dissection (ESD) has now become the accepted technique of resection of early tumors in the upper gastrointestinal (GI) tract, although it has long been practiced among Japanese endoscopists who pioneered this technique. ESD, however, is technically challenging and is rarely practiced outside of Japan or Korea [1]. A steep learning curve to master ESD, prolonged procedure duration, increased procedure risks, lack of commensurate reimbursement, and need for specialized tools have become challenges in mastering ESD [2]. Endoscopic mucosal resection (EMR) is technically less demanding and seen by many as an alternate method of endoscopic resection for early GI neoplasia. However, EMR is unable to achieve en-bloc resection for lesions >20 mm in size and has been shown to have a higher rate of tumor recurrence compared to ESD.

In Japan, several experts have suggested that competency in ESD can only be achieved following supervised performance of between 30 and 80 ESD cases [3]. Such a volume of ESD cases may be easily achieved in a short space of time in Japan and Korea, where a high incidence of early