



Is endoscopic mucosal resection-precutting superior to conventional methods for removing sessile colorectal polyps?

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Abstract

We reviewed a study that reported a comparative analysis of the effects of endoscopic mucosal resection (EMR) precutting and conventional EMR for removing non-pedunculated, 10-20 mm sized colorectal polyps. We identified some statistical deficiencies in this study. In addition, we believe that the differences between the treatments failed to achieve significance, and therefore, further analysis is required.

Key Words: Comparative analysis; Endoscopic mucosal resection precutting; Endoscopic mucosal resection; Colorectal polyps

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Core Tip: This is a comment on an article that reported whether endoscopic mucosal resection (EMR)-precutting (EMR-P) is superior to conventional EMR (CEMR) for removing sessile colorectal polyps. It was a randomised, prospective, multicentre study with high-quality evidence, but we think that some questions remain as to whether EMR-P is superior to CEMR.

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TO THE EDITOR

The article published by Zhang *et al*[1] caught our attention particularly. In this article, a better method for removing sessile colorectal lesions sized 10-20 mm was investigated. They believed that endoscopic mucosal resection (EMR)-precutting (EMR-P) was a better treatment than the conventional EMR (CEMR). Despite the potential benefits of higher *en bloc* resection and lower recurrence rates, questions remain as to whether EMR-P can be used as an alternative to CEMR for the treatment of medium-sized colorectal polyps.

Commonly, all colorectal polyps are removed, except for rectosigmoid hyperplastic polyps that are ≤ 5 mm in size[2]. The ideal resection is completed or *en bloc* with a negative histologic margin, R0. The most effective way to remove sessile or laterally spreading lesions with a diameter of less than 10 mm is *via* EMR[3]. However, even by expert hands, colorectal polyps larger than 20 mm in size cannot be satisfactorily removed *en bloc* with EMR[4].

EMR with circumferential precutting (EMR-P) is a modification of the conventional EMR technique. To separate the tumor from non-neoplastic tissue, a circumferential mucosal incision is made using a snare tip[1]. Some studies have confirmed that EMR-P is more effective than CEMR in the treatment of large sessile colorectal tumours (> 20 mm in diameter)[5,6]. To date, only two studies have directly compared the efficiency of EMR-P and CEMR in the treatment of polyps sized 10-20 mm[1,7]. However, Yoshida *et al*[6,7] studied the difficult lesions < 20 mm in size, which were defined as lesions in special locations, with flat morphology, poor elevation by injection, and poor access according to the European Society of Gastrointestinal Endoscopy guidelines[8]. Thus, this study showed limited significance in tackling normal, non-pedunculated lesions.

In the study by Zhang *et al*[1], when removing polyps sized 10-20 mm, the EMR-P group showed a higher *en bloc* resection rate compared to the CEMR group in both intention-to-treat and per-protocol analyses. However, these differences were significant in the per-protocol analysis, whereas no significant differences were observed in the intention-to-treat analysis. We believe that certain statistical deficiencies and some questions warrant further attention. First, these two groups were labeled "EMR-P" in the Figure 2 (<https://www.wjgnet.com/1007-9327/full/v28/i45/6397.htm>). Was this due to a clerical error? Second, the authors mentioned that each group had three patients with pedunculated lesions were not included in the per-protocol analysis. However, one exclusion criterion was the presence of pedunculated lesions, so how were the patients initially included in the intention-to-treat analysis? The per-protocol analysis could have inflated the importance of the differences between the groups, which may not have been clinically meaningful. Therefore, can the results of the intention-to-treat analysis be considered more reliable in this study?

In conclusion, it is difficult to achieve *en bloc* resection by EMR for colorectal tumours which are ≥ 20 mm in size, but EMR is an effective technique for the removal and treatment of sessile polyps sized 10-20 mm. Although in comparison with EMR, PEMR can lead to a high *en bloc* resection rate, these were not significantly different, and therefore, further analysis is required.

FOOTNOTES

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