

Predictors of non-ampullary duodenal lesion resection outcomes: 7-year experience from a tertiary centre.

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Introduction

Duodenal polyps are encountered in up to 4.6% of patients referred for gastroscopy.

Optimal management of duodenal polyps has not been established and the risks of endoscopic resection are not well known. The aim of this retrospective study was to review the experience duodenal polypectomy in a tertiary referral centre with respect to safety profile and recurrence rates.

Methods

Retrospective analysis of patients undergoing duodenal polypectomy between September 2016 and June 2023 was carried out. Demographics, resection techniques, lesion characteristics and adverse events (AE), was collected from medical records. Univariate and multivariable analysis was performed to identify independent risk factors for complications and residual tissue.

Results

70 patients were included in the study: 34 females and 36 males (median age 63.0 years).

Mean lesion size was 20.98mm. 21% (15/70) were <10mm in size, 40% (28/70) were 10-

20mm, 24% (17/70) were 20-50mm and 14% (10/70) were >50mm. 33 resections were

attempted under sedation and 37 under general anaesthetic (GA). 9 cases were not

completed as 7 were unresectable due to lesion characteristics and 1 case required further work up before resection. Of those resected, 22 lesions were in D1, 41 in D2 and 7 in D3.

These were resected either Enbloc (n = 37) or piecemeal (n = 24) and lesions removed

piecemeal were significantly larger than those removed Enbloc (median 27.5mm vs 13.0mm, $p=0.0003$). Histology showed 41 were tubulovillous adenomas with low grade dysplasia, 7 were hamatomous, 5 were neuroendocrine tumours, 4 were tubulovillous adenomas with high grade dysplasia, 2 were hyperplastic, 1 was a T1 cancer, 1 was submucosal lipoma and 9 histology samples were not retrieved. There were no immediate AEs in any cases. 5 patients (7.14%) were readmitted with bleeding within 7 days post procedure. Univariate analysis showed GA was associated with less AEs ($p=0.008$) but no independent factors were found on multivariable analysis. 17/61 (26.2%) had residual tissue of which 14 were finally resected endoscopically. Multivariable analysis adjusting for lesion size, location, histology, type of sedation and enbloc/piecemeal resection showed lesion size (adj OR 1.05, $p=0.043$), high grade or above histology (adj OR 10.42, $p=0.014$) and piecemeal resection (adj OR 4.87, $p=0.042$) were independently associated with residual tissue.

Conclusion

This study shows endoscopy resection of duodenal polyps by both enbloc and piecemeal has low adverse event rates, particularly when carried out under GA Risk factors for incomplete resection was lesion size, high grade or above histology and the need for piecemeal resection.