

# Role of colonoscopy following appendicectomy in over 40-year-old patients

Taylor, G., Cowan, S., Leung, E. 2021

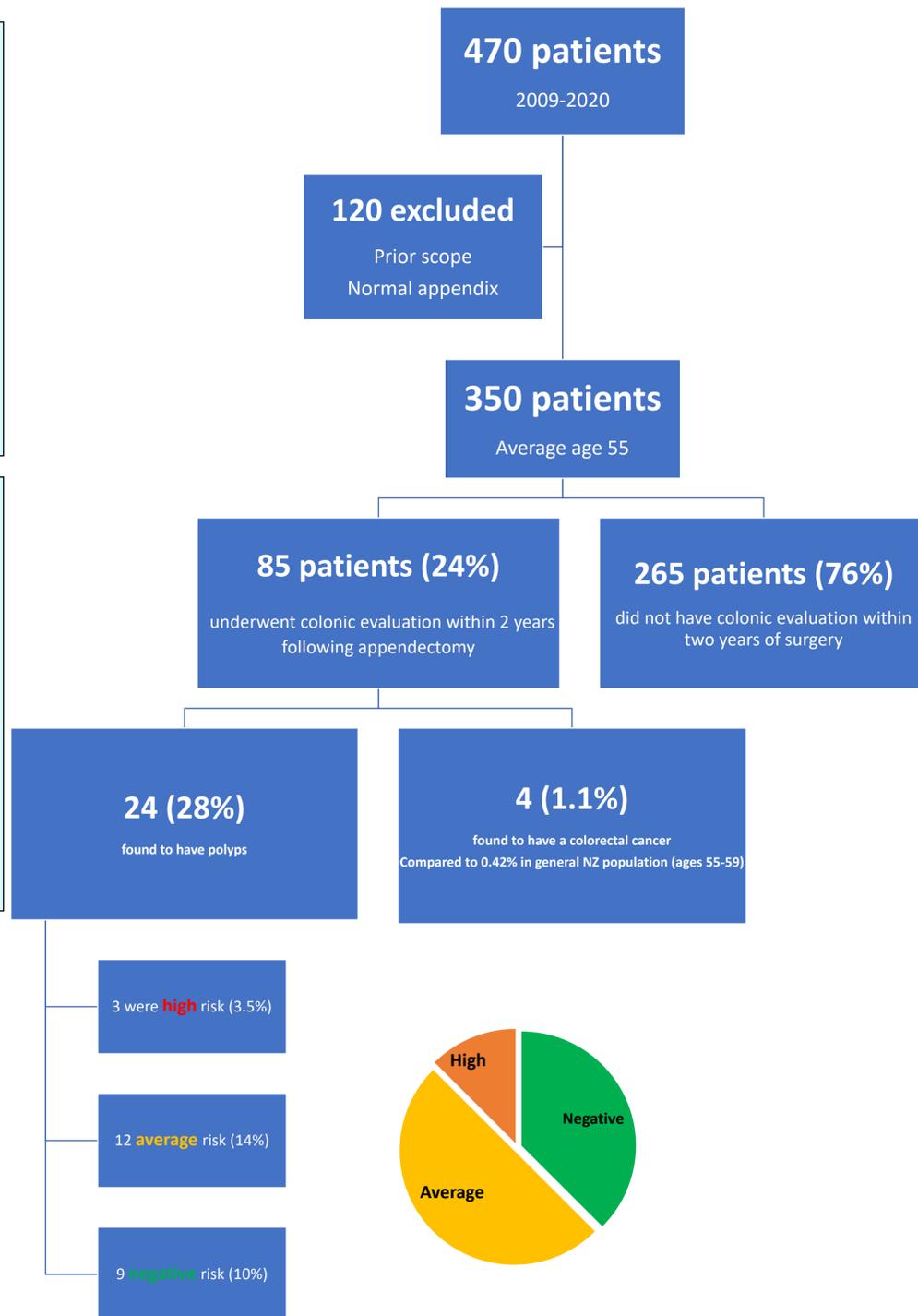
Appendicitis can present as a caecal obstructing lesion or impaired function of colonic peristalsis owing to colonic pathology<sup>1</sup>. Studies have shown an increased risk of colorectal adenoma and carcinoma following appendicitis in over 40 year-olds<sup>1,2</sup>. However, the role of colonoscopy following appendicectomy in over 40s is controversial<sup>1</sup>. The study aimed to determine feasibility of colonic assessment following appendicitis and consequently the rate of significant adenomas and carcinoma.

## Methods:

All patients over the age of 40 with confirmed appendicitis, either operatively or radiologically, were retrospectively analysed between January 2009 and April 2020. Patients with prior colonoscopy within 18 months of appendicitis and normal appendix histology were excluded. Demographics, mode of diagnosis, histology, timing of colonic assessment, colonoscopy findings and histology within 2 years following appendicitis were collated. The rate of colorectal carcinoma in this group was compared to age-specific colorectal incidence in NZ data.

## Results:

350 patients were identified within the inclusion criteria: median age was 55 (183M:166F). 99% of patients underwent successful appendicectomy. 85 patients received a colonoscopy within 24 months. 59%, 40% and 1% of appendicitis were diagnosed by computerised tomography, clinically and by ultrasound respectively. There were 4 (1.1%) cases of adenocarcinomas: 2 in the caecum, 1 in the transverse colon and 1 in the sigmoid colon. 3(3.5%) cases had high risk and 12(14%) had average risk adenomas.



## APPENDIX HISTOLOGY RESULTS

Histology	Number (%)
Appendicitis acute/chronic	289 (83%)
Mucinous cystadenoma	6 (2%)
Mucinous neoplasm low grade	7 (2%)
Mucinous neoplasm high grade	2 (0.5%)
Neuroendocrine tumour	2 (0.5%)
Goblet cell carcinoid	1 (0.2%)
Appendix adenocarcinoma	1 (0.2%)

## COLORECTAL CANCERS FOUND ON POST APPENDICECTOMY COLONIC EVALUATION (1.1%)

1 <sup>ST</sup> Caecal cancer	T3, N1 mucinous adenocarcinoma of caecum No previous CT scan Diagnosed on follow up colonoscopy.
2 <sup>nd</sup> Caecal cancer	T4, N1 high grade adenocarcinoma of caecum CT diagnosed appendicitis with differential of caecal cancer raised Colonoscopy 5 months following appendicectomy confirmed diagnosis
Transverse colon cancer	T3, N0 adenocarcinoma Not on initial CT scan at time of appendicitis presentation, seen on further CT for renal cyst Diagnosed on colonoscopy 17 months later
Rectosigmoid Colon Cancer	T3, NO, Mx Not on initial CT scan Diagnosed Colonoscopy 22 months following appendicectomy

## Conclusion:

Our data concurred with other pilot studies that there is an increased incidence of colorectal neoplasms in the over 40s with appendicitis. The rate of colonoscopy following appendicitis in our unit was low. Routine colonic assessment should be offered to all suitable patients in this cohort after discharge.

## REFERENCES:

- Shine, R. J., Zarifeh, A., Frampton, C., & Rossaak, J. (2017). Appendicitis presenting as the first manifestation of colorectal carcinoma: a 13-year retrospective study. *Ethnicity*, 299, 47-5.
- Peltokallio, P. (1966). Acute appendicitis associated with carcinoma of the colon. *Diseases of the Colon & Rectum*, 9(6), 453-456.
- Hill, J., & Leaper, D. J. (1986). Acute appendicitis and carcinoma of the colon. *Journal of the Royal Society of Medicine*, 79(11), 678.
- Arnbjörnsson, E. (1982). Acute appendicitis as a sign of a colorectal carcinoma. *Journal of surgical oncology*, 20(1), 17-20.
- Lai, H. W., Loong, C. C., Tai, L. C., Wu, C. W., & Lui, W. Y. (2006). Incidence and odds ratio of appendicitis as first manifestation of colon cancer: a retrospective analysis of 1873 patients. *Journal of gastroenterology and hepatology*, 21(11), 1693-1696.
- Sylthe Pedersen E, Stornes T, Rekstad LC, Martinsen TC (2018) Is there a role for routine colonoscopy in the follow-up after acute appendicitis? *Scand J Gastroenterol* 53(8):1008–1012.
- Update on Polyp Surveillance Guidelines 2020. (2020, December 11). Retrieved Jan 20, 2021, from Ministry of Health : <https://www.health.govt.nz/publication/update-polyp-surveillance-guidelines-2020>

