

PWE-005

# COMPLICATION RATES OF ENDOSCOPIC POLYPECTOMY IN RELATION TO POLYP CHARACTERISTICS AND TECHNIQUES

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**Introduction** Endoscopic polypectomy (EP) could reduce colorectal cancer incidence by 76–90%. Quoted rates of major complications in EPs were low, often less than 1%. We aimed to examine our complication rates in relation to the characteristics of polyps removed and techniques employed.

**Methods** We retrospectively reviewed 2106 EPs performed on 1252 consecutive patients over a 3.5-year period between January 2006 and June 2009. EP techniques and polyp morphology, site and size were examined. EP data were matched with data on readmissions post-endoscopy. Serious complications were defined as events leading to readmission within a 14-day period.  $\chi^2$ -test and Fishers Exact Analysis were used in significance testing.

**Results** Majority of our EPs were done with colonoscopy (94%) while 6% were done with flexible sigmoidoscopy. Thirteen patients or 23 (1.1%) polypectomies had complications within 14 days. None of our complications involved perforation, 10 (0.47%) had bleeding and 4 (0.19%) had post-polypectomy syndromes. Our bleeding rate was 1:211, lower than the national standard of 1:100. No deaths were reported within the study period.

Majority of polyps removed were sessile in morphology (77%) with another 23% being pedunculated. Over 80% of polyps resected were 10 mm or less. The number of polyps removed fell with increasing size. Only 2% of polyps removed were larger than 30 mm, largest being 80 mm (2 polyps). Complication rates rose from 1% in the smallest group (1–10 mm) to 4.9% in the largest (>31 mm) but the rise was not statistically significant ( $p=0.067$ ).

We performed more EPs in the descending colon, sigmoid colon and rectum (70%) than in the rest of the colon but found fewer complications in these groups compared to ascending and transverse colon polypectomies ( $p=0.002$ ). The latter groups had a higher tendency of developing post-polypectomy syndrome and bleeding.

We performed 1163 (55%) snares, 783 (37%) hot biopsies and 164 (8%) endoscopy mucosal resections (EMR). Complication rates in snare polypectomies were not significantly different from that of hot biopsies ( $p=0.64$ ). However, EMR had significantly more complications compared to snares ( $p=0.045$ ) and hot biopsies ( $p=0.026$ ).

**Conclusion** We achieved lower bleeding rates than that published nationally. Hot biopsy did not carry a higher risk although EMR did. Polyp size was an important risk factor although statistical significance was not met. Ascending and transverse colon polypectomies carried the highest risks of complications. Patients should be made aware of this risk prior

to their procedure. We would include the rates of minor complications in a longer follow-up in future studies.

**Competing interests** None.

**Keywords** EMR, hot biopsy, polypectomy, Snare.