

Aspirin, NSAIDs and Dysplastic Colonic Polyps – Lessons from Bowel Cancer Screening

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Introduction & Aims

- The prevention of bowel cancer has been enhanced by the introduction of bowel cancer screening programs.
- Both aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) are thought to be useful in bowel cancer chemoprevention.
- Studies on chemoprevention have been limited by the failure to distinguish between the activities of low-dose aspirin and NSAIDs.
- Also, little is known about the activities of these agents in bowel cancer screening programs.
- We, therefore, aimed to assess the numbers and sizes of polyps/ cancers detected in bowel cancer screening of patients using low-dose aspirin (75-mg/ day), NSAIDs, and controls.

Methods

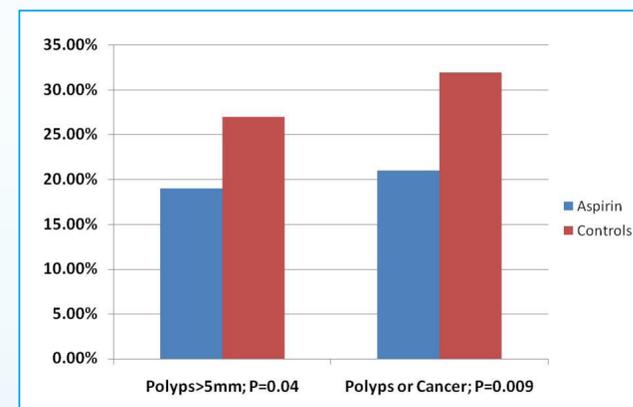
- Guaiac peroxidase faecal occult blood test kits were sent to 71026 local residents,
 - aged 50-74 years,
 - over the 12 calendar months of 2016
- 38799 subjects filled in and returned the kits.
- Those with positive kits (n=849) were interviewed and invited for colonoscopy.
- Their colonoscopic findings were classified according to their use of aspirin, NSAIDs, or neither (Controls).
- Only dysplastic or cancerous lesions were analysed.
- **Statistics:**
 - The Mann-Whitney test and Fisher's exact test were used as appropriate.
 - Odds ratios were adjusted for age and sex by logistic regression.

Results

Demography:

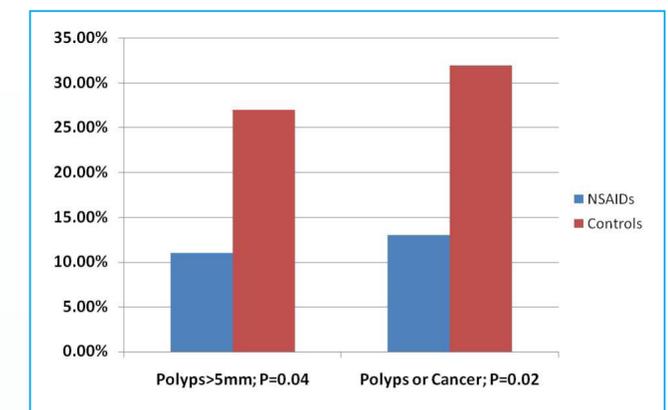
- 528 subjects were colonoscoped at one single centre.
- The aspirin group (n=112) had 74 (66%) males and a median age of 68 years.
- The aspirin group had older patients (median 69 vs. 61 years, $P < 0.001$).
- The NSAID group (n=46) had 23 (50%) males and a median age of 58 years.
- The Control group, not using either of these agents (n=370), had 207 (56%) males and a median age of 63 years ($P < 0.001$ vs. aspirin users; $P = 0.012$ vs. NSAID users).

Figure 1 - Polyps: Aspirin vs. Controls



Polyps > 5 mm were found in 21 (19%) subjects taking aspirin vs. 99 (27%) controls [odds ratio, OR, 0.57; 95% confidence intervals, CI, (0.33-0.98); $P = 0.042$]. Polyps > 5 mm or cancer were found in 24 (21%) aspirin users vs. 118 (32%) controls [OR, 0.50; 95% CI (0.30-0.84); $P = 0.009$].

Figure 2 - Polyps: NSAIDs vs. Controls



Polyps > 5mm were found in 5 (11%) subjects taking NSAIDs vs. 99 (27%) controls [OR, 0.36; 95% CI (0.14-0.86); $P = 0.036$]. Polyps > 5 mm or cancer were found in 6 (13%) NSAID users vs. 118 (32%) controls [OR, 0.35; 95% CI (0.14-0.86); $P = 0.022$].

Conclusions

1. In this bowel cancer screening program, subjects taking low-dose aspirin were older while those taking NSAIDs were younger than controls not using either of these agents.
2. After adjusting the odds ratios for age and sex, the use of aspirin or NSAIDs was associated with lower prevalence of dysplastic colonic polyps or cancers.

These results provide further evidence for the potential use of aspirin or NSAIDs for bowel cancer chemoprevention.

