Open access gastroscopy findings are unrelated to the use of aspirin and non-steroidal anti-inflammatory drugs

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SUMMARY

This study aims to determine whether priority should be given to patients taking non-steroidal anti-inflammatroy drugs (NSAIDs) or aspirin when selecting which dyspeptic patients to refer for open access gastroscopy. A total of 8156 patients underwent gastroscopy, all of whom had upper gastrointestinal symptoms. Patients taking NSAIDs or aspirin showed no significant differences in the frequency of ulcer disease when age-matched groups were compared. Although NSAIDs and aspirin are frequently implicated in gastrointestinal bleeding in the elderly, patients referred for investigation of dyspepsia show no increase in major endoscopic pathology.

Keywords: gastroscopy; aspirin; NSAIDs.

Introduction

UPPER gastrointestinal symptoms are a common reason for individuals visiting their general practitioner and around half of those reporting dyspeptic symptoms take medication to alleviate their symptoms.[1] The number of patients referred to hospital by their general practitioners for open access gastroscopy (OAG) to investigate their dyspeptic symptoms has increased steadily over the past few years as open access gastroscopy services have become more widely available.[2] Factors influencing the decision to investigate include age, use of aspirin and NSAIDs, recent onset of symptoms, and features such as weight loss or dysphagia. The aim of this study was to investigate whether use of aspirin and NSAID was associated with an increase in endoscopic pathology.

Methods

All open access gastroscopies performed in Middlesbrough over the past six years were reviewed: a total of 8156 procedures. Patients requiring open access gastroscopies during that time were referred using a standard form. The information on the referral form and the results of the gastroscopy were stored on computer. For this study the data have been analysed for the patient's age, aspirin and NSAID usage, endoscopic findings, and co-prescription of acid suppression therapy (H_2 antagonists and proton pump inhibitors).

Statistical analysis was performed using the chi-square test, $P<0.05$ being taken as significant. Where appropriate, relative risks and 95% confidence intervals were calculated.

Results

From the 8156 dyspeptic patients who underwent open access gastroscopy, aspirin was taken by 318 patients (3.9%) and NSAIDs by 759 patients (9.3%). Twenty-seven patients were taking both. Patients taking aspirin and NSAIDs were generally older than those not receiving these preparations (Figure 1). In the NSAID/aspirin group, there were almost twice as many patients over 60 years old as there were in the group of non-users (43.4% versus 23.5%; $P<0.01$).

The endoscopic findings varied with age. The incidence of gastric ulcers and gastric cancer rose with increasing age: 2.1% of those under 60 years had gastric ulcers compared with 4.8% of patients over 60 years ($P<0.001$). The frequency of each of the major endoscopic diagnoses is shown in Table 1. Patients taking NSAIDs or aspirin showed no significant differences in the frequency of the major diagnoses when age-matched groups were compared.

Overall, 2688 patients had received anti-secretory acid suppression treatment prior to their open access gastroscopy. One third of the NSAID/aspirin group were taking antisecretory medication, as were one third of patients not on NSAIDs or aspirin.

Discussion

This large study (8156 patients) appears to provide evidence against even a modest increase in risk due to these drugs in patients with symptoms. NSAID use was higher in older patients, and without correction for age an apparent increase in gastric ulcers is seen. This increase disappears when age is taken into account. Co-prescription with anti-secretory drugs cannot be the explanation for the lack of an association between NSAIDs and ulcers since co-prescription rates were similar for both groups (users and non-users).

The design of this retrospective study inevitably depends on the accurate completion of the standard patient referral form. From the start of our open access service, incomplete forms were returned to the referring doctor for completion, so bias introduced by erroneous or incomplete forms was minimized.

The results of this study indicate that use of NSAIDs and aspirin should not be a major factor when selecting dyspeptic patients for investigation. Several groups have attempted to produce formal guidelines on appropriate indications for upper gastrointestinal endoscopy;[3,4,5] they concluded that patients under 45 years with dyspepsia and on treatment with NSAIDs should be investigated. In contrast to the guidelines approved by the American College of Physicians,[6] the dyspepsia management guidelines published in 1996 by the British Society for Gastroenterology[6] include NSAID use in the list of features indicating that dyspepsia should be investigated by endoscopy. Data from this study suggest that available (and finite) resources might be better employed giving priority to referrals on the basis of age.

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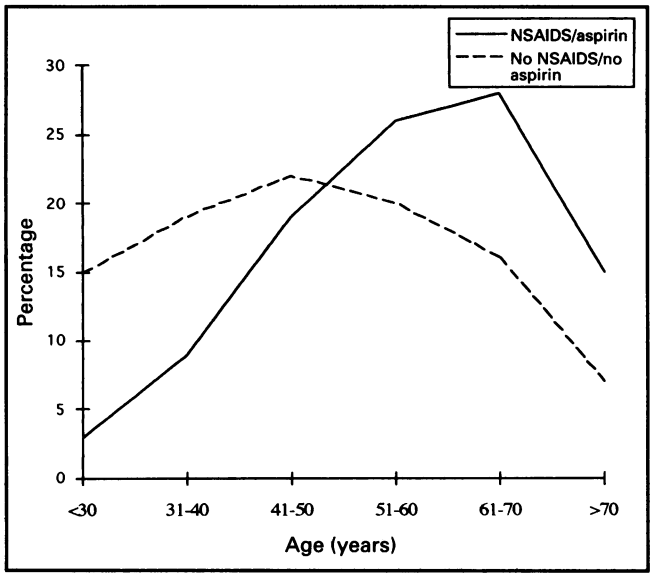

Figure 1. Age distribution of NSAID/aspirin users versus non-users.

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Table 1. Frequency of the major endoscopic diagnoses and relative risks of major pathology related to age and NSAID or aspirin use. Figures are percentages of age group.

	Age				
	<50	51-60	61-70	>70	All ages
Oesophagitis					
NSAIDs	15.8	18.8	23.9	18.4	19.3
No NSAIDs	17.8	19.8	22.6	23.0	19.3
Duodenal ulcer					
NSAIDs	8.9	12.0	9.6	9.9	10.5
No NSAIDs	12.7	13.1	11.8	7.7	12.2
Gastric ulcer					
NSAIDs	3.2	2.4	1.4	4.8	5.3
No NSAIDs	1.7	3.7	4.I	6.0	2.8
Total patient numbers					
NSAIDs	328	276	293	152	1049
No NSAIDs	4015	1423	1148	521	7107

Relative risk of oesophagitis	= 0.99 (95% CI = 0.87–1.14)
Relative risk of duodenal ulcer	= 0.85 (95% CI = 0.71–1.03)
Relative risk of gastric ulcer (all ages)	= 1.17 (95% CI = 1.10–1.25)
Relative risk of gastric ulcer <50 years	= 1.46 (95% CI = 0.71–3.02)
Relative risk of gastric ulcer 51-70 years	= 0.82 (95% CI = 0.50–1.35)
Relative risk of gastric ulcer >70 years	= 0.88 (95% CI = 0.42–1.88)