

interpret and, not surprisingly, has varied considerably in different communities around the world. Our data on middle aged British men suggest that alcohol is not a risk factor for ischaemic heart disease and that the apparent protective effect of light, regular drinking reflects the many advantageous characteristics of men who drink in this fashion. In this British community there is no convincing evidence of a protective effect directly due to alcohol intake.

A G SHAPER
A PHILLIPS
S J POCOCK
MARY WALKER

Department of Clinical Epidemiology and General Practice,
Royal Free Hospital School of Medicine,
London NW3 2PF

- 1 Turner TB, Bennet VL, Hernandez H. The beneficial side of moderate alcohol use. *John Hopkins Medical Journal* 1981;148:53-63.
- 2 Marmot MG. Alcohol and coronary heart disease. *Int J Epidemiol* 1984;13:160-7.
- 3 Klatsky AL, Armstrong MA, Friedman GD. Relations of alcohol beverage use to subsequent coronary artery disease hospitalization. *Am J Cardiol* 1986;58:710-4.

Treatment of palindromic rheumatism with chloroquine

SIR,—On the basis of chloroquine's effectiveness in stopping episodic joint inflammation in three patients suffering from palindromic rheumatism, Drs M R Richardson and A M Zalin (21 March, p 741) recommend the drug as a first line treatment in patients with this condition. Palindromic rheumatism is not a uniform clinical entity but a term used to describe a heterogeneous group of patients, including those with various episodic arthritides and patients in whom the condition is part of the symptom complex of rare systemic diseases.¹ A clearly defined set of diagnostic criteria should therefore be determined before therapeutic trials are begun. Furthermore, in most patients palindromic rheumatism seems to precede chronic erosive rheumatoid arthritis.^{1,2}

We followed up 60 patients with palindromic rheumatism for a total of 598 years from the onset of symptoms (295 of them prospectively). Thirty five patients went on to develop chronic arthritis. In particular, patients with positive rheumatoid serology, extra-articular attacks, and generalised symptoms during episodes of joint inflammation tended to develop chronic arthritis. Palindromic rheumatism preceded systemic lupus erythematosus in one patient, Wegener's granulomatosis in one, and multiple myeloma in one. Eight of the patients also fulfilled the diagnostic criteria for fibromyalgia.³

Treatment with hydroxychloroquine 300 mg daily was tried in 34 patients and was considered to be effective if remission was induced in patients with chronic arthritis or if palindromic attacks were prevented in patients whose rheumatism had remained palindromic.⁴ Hydroxychloroquine was effective in only one of 19 patients with chronic arthritis and in seven of 15 patients with palindromic rheumatism. In four cases treatment was withdrawn because of side effects and was judged to have failed. Five of the responders also suffered from fibromyalgia. By comparison, 50 patients received intramuscular injections of sodium aurothiomalate (gold) 10 mg, 20 mg, 30 mg, and then 50 mg weekly up to a dose of 10-13 mg/kg body weight and then 50 mg monthly. The treatment was effective in 26 patients, but it was stopped because of side effects in 14 and because of lack of response in six. At the time of writing the effect could not be assessed in four patients. In most patients the effect (and side effects) appeared before a total dose of 500 mg had been given and

often before the patient had received a total dose of 100 mg.

The favourable results reported by Drs Richardson and Zalin with chloroquine treatment in patients with palindromic rheumatism are similar to those of previous uncontrolled trials with penicillamine, chloroquine, and colchicine.⁵⁻⁷ Until confirmed by larger scale studies the results must be treated as at least equivocal.

The effect of gold in patients with palindromic rheumatism is well documented,^{1,2} and the side effects may easily be controlled by scrupulous follow up. In our experience, particularly if the patient shows the prodromal symptoms of chronic arthritis, gold remains the drug of choice in the treatment of palindromic rheumatism. Provided that no underlying systemic disease is found, a trial with chloroquine or with hydroxychloroquine may be performed and should always be carried out if the patient also suffers from concomitant fibromyalgia.

PEKKA HANONEN
TIMO MÖTTÖNEN
MARTTI OKA

Central Hospital,
SF-40620 Jyväskylä,
Finland

- 1 Mattingley S, Jones DW, Robinson WM, et al. Palindromic rheumatism. *J R Coll Physicians Lond* 1981;15:119-23.
- 2 Wajed MA, Brown DL, Currey HLF. Palindromic rheumatism. Clinical and serum complement studies. *Ann Rheum Dis* 1977;36:56-61.
- 3 Yunus M, Masi AT, Calabro JJ, et al. Primary fibromyalgia (fibrositis): clinical study of 50 patients with matched normal controls. *Semin Arthritis Rheum* 1981;11:151-71.
- 4 Pinals RS, Masi AT, Larsen RA, et al. Preliminary criteria for clinical remission in rheumatoid arthritis. *Arthritis Rheum* 1981;24:1308-15.
- 5 Huskisson EC. Treatment for palindromic rheumatism with D-penicillamine. *Br Med J* 1976;ii:979.
- 6 Golding DN. D-penicillamine in palindromic rheumatism. *Br Med J* 1976;ii:1382-3.
- 7 Schwartzberg M. Prophylactic colchicine therapy in palindromic rheumatism. *J Rheumatol* 1982;9:341-3.

Ulcerogenicity of piroxicam: an analysis of spontaneously reported data

SIR,—The letter by Messrs C P Armstrong and A L Blower (21 March, p 772) is a disservice to experts in gastroenterology and epidemiology and contradicts the vast body of data recently reviewed by major regulatory authorities. Though the authors purport to summarise data from a case-control study, the design of the study and the handling of the material seem to be seriously flawed. They do not describe a proper case-control study but what resembles a case review series with a comparison group added for convenience. We would like to point out the more obvious flaws.

Firstly, Messrs Armstrong and Blower used a "consecutive group" of controls: an indiscriminate group; controls should have the same potential for exposure to the study drugs as cases. Secondly, there was apparently no controlling for age or sex in the design or analysis, and yet both are confounding factors known to be powerful determinants of peptic ulcer disease and exposure to non-steroidal anti-inflammatory drugs. Therefore, the comment on the proportion of piroxicam users over the age of 60 in the case group is meaningless. Thirdly, the hospital controls are described as being "without known peptic ulceration." It is imperative that appropriate diagnostic measures are used to exclude gastrointestinal disease. Fourthly, it is extremely difficult and usually misleading to extrapolate drug exposure statistics from hospital patients to the community. Fifthly, there is no indication that the study was initially designed to test whether one non-steroidal anti-inflammatory drug's associated risk differed from that of others, and no information about other such

drugs is provided. The crude estimate of the risk associated with piroxicam is not an appropriate epidemiological measure as it does not make use of all relevant data. Furthermore, in view of the extensive experience reported by others,¹ a properly designed study of this nature would require many more cases.²

The authors refer to piroxicam's long half life and altered pharmacokinetics in the elderly. There is no evidence that a drug with a long half life is any more toxic than one with a short half life.^{3,4} It has been clearly shown that, though there may be a small increase in steady state plasma concentrations of piroxicam with increasing age, this is not related to the incidence or severity of gastrointestinal or other adverse events (the same has been shown for naproxen).^{4,5}

In response to a petition by the Health Research Group in the United States in January 1986 for a restriction of piroxicam's use in patients over the age of 60, the Food and Drug Administration conducted an exhaustive review of data on clinical, epidemiological, pharmacokinetic, and spontaneous adverse gastrointestinal events. The petition was decisively rejected with the conclusion that "piroxicam does not have gastrointestinal adverse reactions and gastrointestinal fatality rates that clearly separate it from other non-steroidal anti-inflammatory drugs. The current Feldene labelling [data sheet] adequately addresses risks of gastrointestinal toxicity."⁶ Piroxicam has also been reviewed recently by other regulatory bodies, including the Committee on Safety of Medicines in Britain⁷ and the regulating bodies in Germany and Japan, all of which reached similar conclusions.

It is disappointing that Messrs Armstrong and Blower are either unaware of or have ignored a wealth of published information on the gastrointestinal toxicity of piroxicam and other such drugs, which confirms that piroxicam cannot be distinguished from other, widely used non-steroidal anti-inflammatory drugs with regard to gastrointestinal toleration and toxic potential in patients of all ages.^{2,4,6,7}

E A BORTNICHAK
A J GORDON

Pfizer International,
New York

E A STEVENS

Pfizer Limited,
Sandwich,
Kent CT13 9NJ

- 1 Bortnichak EA, Sachs RM. Piroxicam in recent epidemiologic studies. *Am J Med* 1986;81(suppl 5B):44-8.
- 2 Somerville K, Faulkner G, Langman M. Non-steroidal anti-inflammatory drugs and bleeding peptic ulcer. *Lancet* 1986;ii:462-4.
- 3 Sebaldt RJ. A short plasma half life does not predict less drug accumulation. *J Rheumatol* 1986;13:1185-6.
- 4 Hobbs DC. Piroxicam pharmacokinetics: recent clinical results relating kinetics and plasma levels to age, sex and adverse effects. *Am J Med* 1986;81(suppl 5B):22-8.
- 5 Rugstad HE. Piroxicam and naproxen plasma concentrations in patients with osteoarthritis: relation to age, sex, efficacy and adverse events. *Clin Rheumatol* 1986;5:389-98.
- 6 Center of Drugs and Biologics. *Recommendation in piroxicam imminent hazard proceeding*. Washington, DC: Food and Drug Administration, 1986.
- 7 Anonymous. CSM update: non-steroidal anti-inflammatory drugs and serious gastrointestinal adverse reactions—2. *Br Med J* 1986;292:1190-1.

SIR,—The report by Messrs C P Armstrong and A L Blower (21 March, p 772) adds more confusion to the issue of whether one non-steroidal anti-inflammatory drug is or is not more toxic than the others. They state that piroxicam was associated with 23 out of 113 (20%) ulcer complications related to such drugs. By contrast, "only 11% of the control patients who were taking non-steroidal anti-inflammatory drugs" were receiving