ity reaction, expressed only by fever. The patient, due to the episode described above, refused to continue treatment with anti-TNFα.

The hypersensitivity febrile reaction is a well known immediate adverse effect following infusion of anti-TNFα (6). A late-onset febrile reaction (after 14 days) has also been reported but was then associated with additional signs (7). This case is unique in that high and long-lasting fever was the sole manifestation. If evidence that this kind of fever is one of the side effects of treatment with anti-TNFα is confirmed, this should be taken into account in order to avoid a misleading diagnosis of infection, including tuberculosis, in patients receiving the drug.

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Prevalence of diffuse idiopathic skeletal hyperostosis in a female Italian population

Sirs,

Diffuse Idiopathic Skeletal Hyperostosis (DISH) is a skeletal disease characterised by calcification of the anterolateral aspect of the vertebral longitudinal ligament, with a wide spectrum of prevalence rates reported (1-7). In a previous report we showed that the prevalence itself might be of great interest (8). By serendipity we have seen female patients with DISH at our general outpatient clinic for rheumatic complaints. These random observations, as well as the absence of data in our female population, led us to assess the prevalence rate of DISH in an unselected sample representative of the general female population. The study formed a part of an epidemiological survey on rheumatic complaints in the population of the Neapolitan area (9).

165 Caucasian subjects were chosen as representative of the general female population. Eighty of them were selected from the employees of the National Agency for Electricity, and 85 from the members of a parish association. Among these subjects, 93 (mean age 57.9 years, range 46-79) agreed to undergo radiographs of the dorsal and lumbar spine in the lateral view (the overall participation rate was 56.4%) and were then enrolled for the evaluation of the prevalence of DISH. The patients who declined to participate in the study did not differ from the recruited subjects in terms of age, self-reported height and weight, and smoking habits. All participating patients gave their informed consent. The study protocol was approved by the local ethical committee.

Diagnosis of DISH was based on the modified Resnick's criteria for epidemiological studies (10). All radiographs were examined independently by three of the authors and contrasting results were resolved after group discussion.

DISH was found in 14 cases (mean age 65.6 yrs., range 54-79), with an overall prevalence rate of 15.1%. The rate increased with age, rising from 7.5% in the group of patients aged between 50-59 to 40% in the group of patients >70 years of age. No cases of DISH were seen in the group of patients aged below 49 yrs (Table I).

To date few epidemiological studies on the general female population have been performed. A Finnish study showed a prevalence of 2.6% in women with DISH, and the rates increased with age up to 6.7% in women older than 70 years (2). More recently, a survey of DISH in the Hungarian population was carried out and showed a prevalence rate in the female population of 12.8%, which is in line with our results, this rate increasing with age to 26% at age >75 (3). The prevalence of DISH among the women in our population was much higher than in Finland, with an age-adjusted rate ratio of 5.8 and a 95% confidence interval ranging from 3.4 to 9.8.

The paucity of epidemiological data on DISH could be explained by the fact that the diagnosis is exclusively based on radiographs and this could present a potential selection bias due to the low compliance of asymptomatic subjects in presenting for x-ray examinations.

In the present study we found a very high prevalence of DISH in an unselected female sample, the highest reported so far. The diagnostic criteria used in our study were a modification of the 1976 Resnick's criteria which are currently used for epidemiologic purposes (6-7, 10). Despite possible differences with the Finnish and Hungarian studies, the data obtained confirm a high DISH prevalence in our area. The use of age-adjustment with 95% C.I. intervals demonstrates that this high prevalence rate is due neither to age-confounding nor sample variability. Our data confirm the differences among prevalence rates in different countries, differences that could be explained by genetic and/or environmental factors.

Table I. Prevalence rates of DISH in a female population, stratified by age.

Age (yrs)	Cases	No. of subjects	Prevalence (%)
40-49	0	20	0
50-59	3	40	7.5
60-69	5	18	27.8
> 70	6	15	40.0
Total	14	93	15.1

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Intestinal perforation and jejunal haemorrhage due to Wegener's granulomatosis

Sirs,

Wegener's granulomatosis (WG) is a necrotising vasculitis of the small and medium-sized arteries that characteristically affects the upper and lower respiratory tract. Involvement of the gastrointestinal tract appears rare, apart from mouth ulcers. However, bloody diarrhoea, intestinal necrosis, ulceration and perforation have all been reported (1).

A 54-year-old woman presented with a 6-week history of earache, nasal stuffiness, malaise, myalgia, oral ulcers and a rash over her upper and lower limbs. Biopsy of the rash revealed a leukocytoclastic vasculitis. Cytoplasmic antineutrophil cytoplasmic antibodies (c-ANCA) were positive, with anti proteinase 3 antibodies (PR3) of 27 Iu/ml. Three pulses of intravenous methyl prednisolone (1 gm) were given on consecutive days and one pulse of intravenous cyclophosphamide (1 gm), followed by oral prednisolone (60 mg daily). She developed transient renal impairment (creatinine 146 umol/l) which resolved with therapy. Renal biopsy was not performed due to an acute deterioration in the patients condition.

The patient developed bloody diarrhoea which increased in frequency, causing her haemoglobin to drop from 10.5 g/l to 7.0 g/l, and required a 3-unit blood transfusion. Upper gastrointestinal endoscopy was normal but colonoscopy was abandoned due to patient discomfort. The diarrhoea continued, and non-tender distention of the abdomen developed. An abdominal CT scan showed thickened segments of small bowel with a small walled off perforation. Urgent laparotomy showed multiple perforations of the terminal ileum and proximal colon. A small bowel resection and right hemicolectomy were performed with ileostomy formation. Two days post operatively a massive haematemesis (900 ml) of fresh blood occurred. The haemoglobin fell to 6.6 g/l. Upper gastrointestinal endoscopy was normal but a mesenteric angiogram showed bleeding of a jejunal branch of the superior mesenteric artery. This was embolised with coils and the bleeding stopped. Histological examination of the resected bowel revealed widespread ischaemia with a granulomatous vasculitis associated with areas of bowel perforation (Fig, 1). The patient was discharged at 2 months post laparotomy on prednisolone 30 mg once daily and monthly IV infusions of 1 g cyclophosphamide.

Fig. 1. Histological specimen of the small bowel resection showing destruction of a blood vessel by local granulomatous inflammatory infiltrate, in keeping with Wegener's granulomatosis.

Our case demonstrates that patients with WG may develop diarrhoea, abdominal pain, intestinal ischaemia, intestinal necrosis and intestinal ulceration with subsequent haemorrhage and perforation. There is a high incidence of laparotomy and death associated with reported cases of intestinal WG (2-8). Intestinal WG can also mimic other inflammatory gastrointestinal diseases like ulcerative colitis or Crohn's disease (9). Intestinal involvement in WG is considered uncommon. However, post mortem studies suggest a high incidence with histological evidence of intestinal vasculitis in 24% of cases (10). This suggests that the occurrence of intestinal WG is underestimated, possibly due to asymptomatic involvement or due to immunosuppressive treatments masking symptoms.

This case demonstrates the serious consequences of intestinal vasculitis in WG. The incidence of intestinal involvement in WG is probably underestimated with immunosuppressive therapy contribuing to this by masking gastrointestinal involvement.

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Circulating eosinophils lack *ex vivo* chemotaxis toward vascular endothelial growth factor in a patient with Churg-Strauss syndrome

Sirs,

Vascular endothelial growth factor (VEGF) is a key promoter of angiogenesis in rheumatoid arthritis and asthma. Increased circulating concentrations of free VEGF in these conditions may be produced by exudation from inflamed organs and release from platelets and other blood cells including eosinophils (1). Platelets contribute to secondary tethering processes of eosinophils to activated endothelium (2). Eosinophil-platelet interactions may therefore play a role in allergic inflammation and in thrombotic disorders of hypereosinophilic patients (3, 4). The recent demonstration of VEGF-induced chemotaxis of eosinophils via VEGF receptor flt-1 was made using peripheral blood eosinophils from healthy donors (5). Whether VEGF affects the chemotactic response of eosinophils in allergic inflammation with hypereosinophilia is unknown. Here we report on the lack of chemotactic effects of VEGF on circulating eosinophils from a patient with Churg-Strauss syndrome (CSS).

A 64-year-old woman was first seen with dyspnoea on exertion 2 months ago that had been treated with oral steroids and bronchodilators for asthma. Prior to admission, steroids had been stopped and occasional dyspnoea was treated with inhalative bronchodilators as needed. Then symptoms worsened with fever, Raynaud's phenomenon