so that errors of classification were mainly due to false negative subjects. Thus the final proportions of chronic drinkers were probably underestimated. We must emphasise that the method used in this study is appropriate for describing a population, or comparing different groups, but is unreliable for assessing accurately the alcohol consumption of individuals.

The cut off points chosen to classify subjects as chronic heavy drinkers (80 g of pure alcohol in men and 30 g in women) are also debatable. They do not correspond to the concept of a threshold in alcohol consumption but rather to the usual values considered in France. A similar analysis performed with other cut off points would also yield a greater prevalence of heavy drinkers among casualties. It is important to keep in mind the fact that the reliability of our results lies in the comparative approach adopted in this study. This approach was made possible by the systematic measurement of γ-glutamyltransferase activities (performed centrally) and mean corpuscular volume and the availability of epidemiological data previously collected in a healthy population.

Clearly these results do not allow us to conclude that alcohol consumption has a causal role in accidents. Among chronic drinkers it is not known whether abstinence contributes to greater vigilance or not. Nevertheless, the particularly high proportion of chronic drinkers found among drivers suggests that the parallelism between alcohol consumption and the incidence of fatal road accidents in France is probably not the effect of chance alone. Previous national campaigns for road safety have been directed at occasional drinkers. The low percentage of this kind of intoxicated driver indicates that a more thorough preventive policy must now address the major problem of chronic consumers of alcohol.

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SHORT REPORTS

Food allergy or intolerance in severe recurrent aphthous ulceration of the mouth

Although the cause of oral aphthous ulcers is unknown, there is a well established association with coeliac disease.[1] Wray *et al* suggested recently that recurrent aphthous ulceration may in some cases be due to gluten sensitivity in the absence of coeliac disease,[2] and other authors have suggested allergy to various foods, including figs, cheese, and tomatoes[3] and walnuts, tomatoes, and fruit.[4] We tested the hypothesis that chronic aphthous stomatitis may be due to food allergy or intolerance, taking as our three most likely dietary suspects gluten, cows' milk protein, and azo dyes and preservatives.

Patients, methods, and results

Fifteen patients (11 women), mean age 29 (range 16-76) years, entered the trial. All had suffered severe oral aphthous ulcers most days for over a year and had normal serum vitamin B_{12}, folate, red cell folate, and serum iron concentrations. A detailed medical history and examination was performed to exclude inflammatory bowel disease and Behçet's syndrome.

For each patient serum immunoglobulin concentration was estimated and biopsy specimens taken from both the buccal mucosa, under local anaesthesia, and the jejunum, using a Watson capsule. The small bowel biopsy specimens were examined histologically for coeliac disease, and mouth and intestinal biopsy specimens were screened by immunofluorescence techniques for local deposition of the immunoglobulin classes IgA, IgM, and IgG and also for the presence of C3.

Each dietary exclusion period lasted 10 weeks and was followed by 10 weeks' return to normal diet. Patients were reviewed regularly by the doctor and dietitian. In the gluten free diet all sources of wheat, barley, rye, and oats were avoided; the milk free diet excluded all natural milk and milk products (soya milk as a substitute was allowed); the azo free diet excluded tartrazine (E102), sunset yellow (E110), new coccine (ponceau 4R; E124), and benzoic acid (E210).

A strict record was kept of the occurrence, duration, and frequency of ulcers. If a patient responded dramatically to the withdrawal of a specific food with relapse after returning to a normal diet the test was repeated and the response noted. Patients whose ulcers cleared on dietary restrictions were followed up on a long term basis and their progress recorded (table).

Patient details and results of dietary restriction

Case No	Age (years)	Sex	Duration of disease (years)	Response to food withdrawal	Length of follow up* (years)
1	20	F	5	Cleared with gluten free diet	3
2	25	F	20	Cleared with gluten free diet	1
3	23	F	>10	Cleared with gluten free diet	4
4	27	F	23	Cleared with azo free diet	2
5	27	F	5	Cleared with azo free diet	1·25
6	60	M	12	Cleared with milk free diet	2
7	73	F	12	Some improvement with milk and azo free diet	
8	16	F	14	No response	
9	13	M	2	Some improvement with milk free diet	
10	35	F	8	No response	
11	15	M	2	Improvement with azo free diet then spontaneous remission	
12	30	F	1	Cleared spontaneously before test diets (? stress related)	
13	20	M	10	Patient defaulted after inclusion	
14	20	F	10	Patient defaulted after inclusion	
15	24	M	2	Patient defaulted after inclusion	

*During prolonged period of follow up patients tended to experiment with diets. Some found quantity of suspect food mattered; others found they could induce remissions that would last for some months with normal diet but eventually relapsed and had to return to dietary restrictions, when ulcers again cleared.

No patient had villous atrophy on intestinal biopsy examination, thus excluding coeliac disease. No significant abnormality was found in the results of serum immunoglobulin assays, and there was no increase in the deposition of immunoglobulins in the buccal or intestinal mucosal samples, apart from some IgA, which would be expected in the gastrointestinal tract.

In five patients there was an unexpected finding on routine histological

examination of the buccal mucosa, with noticeable cellular infiltrate and atrophy of the minor salivary glands found on biopsy examination. The importance of this change, more usually associated with autoimmune conditions such as Sjögren's syndrome, is uncertain.

Comment

Any investigation of allergy to food is complicated by the various possible clinical manifestations and the subjective nature these often take.[5] The six patients who responded to a dietary withdrawal in this trial did so dramatically within a week of avoiding the incriminated food and after prolonged and relentless periods of ulceration, so that a causal relation with the foods seems likely. The buccal and small bowel biopsy examinations were unhelpful, and we intend to avoid performing these in future.

Double blind testing would require more patients than in this study and would have to be designed individually for each suspect foodstuff to accommodate its specific physical properties. This might best be achieved using a solid food, and we are experimenting with incorporation into biscuits.

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Cytology brush entrapment: a hazard in the stomach postoperatively

Brush cytology is commonly used in addition to forceps biopsy to evaluate mucosal lesions observed at fibreoptic endoscopy. It is used especially in the stomach after operation, when there is increased vigilance to exclude neoplastic change.[1] Although forceps biopsy carries the recognised hazards of haemorrhage[2] and perforation,[3] brush cytology is generally regarded as innocuous and without complications. We describe two cases of a potentially serious hazard of brushing in the postoperative stomach: entanglement of the cytology brush in suture material.

Case 1

A 47 year old woman presented with a one week history of vomiting and dysphagia five months after a Polya partial gastrectomy for poorly differentiated adenocarcinoma of the stomach. The planes of surgical resection had been clear of disease, although metastases were present in four of seven sampled lymph nodes.

At upper gastrointestinal endoscopy (using an Olympus GIFQ endoscope) the stomach remnant appeared normal but the stomal margin was friable. When an attempt was made to obtain specimens from this region for cytological examination the bristled head of the spring coiled endoscopic cytology brush (ACMI Rotatable) became entangled in an unseen continuous suture. Despite repeated attempts to remove the brush it could not be freed. Ultimately the cytology brush handle was cut proximal to the endoscope biopsy valve, which enabled the endoscope to be removed and reinserted alongside the brush. Further attempts were made to disengage the brush head from the suture material with scissor forceps but without success. The next day the cytology brush, with a 28 cm length of silk suture material attached, was removed at laparotomy; multiple peritoneal metastases were present.

Case 2

A 70 year old woman presented with vomiting that had persisted throughout the 10 months after a Polya partial gastrectomy performed for adenocarcinoma of the gastric antrum.

At upper gastrointestinal endoscopy (Olympus GIFQ) a small nodule and some exposed suture material were seen at the stoma. During attempts to obtain specimens from this nodule for cytological examination the head of the cytology brush became inadvertantly entangled in the nearby suture material. After several minutes' manipulation the brush was removed with a 5 cm length of silk suture material attached (figure).

Case 2. Cytology brush and entangled suture material.

Comment

To our knowledge there are no reports of complications during or after endoscopic brush cytology. In the light of these two case reports possible entanglement of a cytology brush head in suture material should be regarded as a potential hazard of the procedure. It is not unusual to see non-absorbable suture material, usually silk, projecting from the anastomotic line in patients who had their gastrectomies some years ago, and indeed this may be associated with ulceration.[4] In case 2 suture material was recognised endoscopically, but in case 1 the cytology brush head became entangled in suture material that was hidden, presumably in the superficial layers of the peristomal mucosa. Since one of the patients required a laparotomy to retrieve the cytology brush this is a potential hazard which should be made widely known.

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