

the obvious aggregation with 0.1 mmol/l seen before treatment. This effect lasted for 12 hours, during which she was free of symptoms.

The patient was treated with flurbiprofen for three months, during which time her symptoms did not recur. Within a few days of discontinuing this treatment she complained of the same symptoms. Since then it has been decided to start long-term flurbiprofen treatment again and subsequently she has remained asymptomatic. Her gastrointestinal symptoms also disappeared. This suggests the possibility that the spontaneous platelet aggregation was also causing gut ischaemia.

Comment

The cause of spontaneous platelet aggregation in myeloproliferative and other disorders is unknown, but we suggest that when it fails to respond to treatment with aspirin flurbiprofen may be an effective alternative.

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⁴ Scrobobaci, M L, Gunescu, G, and Orha, I, *Thrombosis and Haemostasis*, 1976, **36**, 645.

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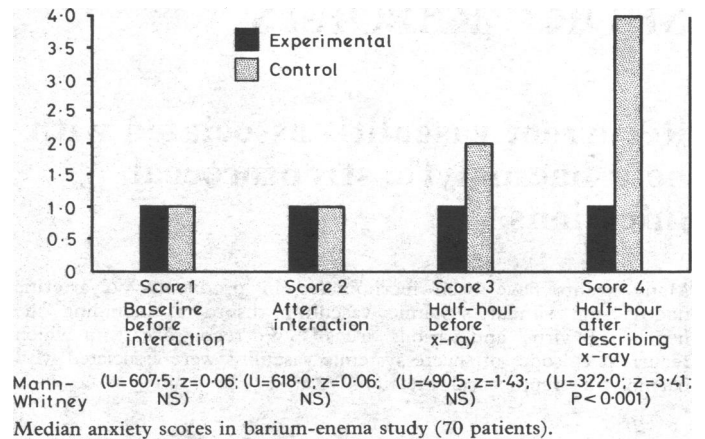
Patients' responses to barium x-ray studies

Several studies have suggested that patients often feel acute anxiety during diagnostic and technical procedures. Hoare and Hawkins¹ found that an unacceptably large number of patients reported that endoscopy was unpleasant and stressful without sedation, and noted that careful discussion beforehand could be beneficial. This agreed with the findings of Johnson *et al*,² who showed how a detailed explanation of the sensations and experience of endoscopy before the procedure reduced patients' anxiety. Another study by Johnson *et al*³ of children having a plaster-of-Paris cast removed also showed how previous explanation was associated with less anxiety.

This study aimed at seeing whether detailed information about the procedure and experiences of the patient before and during a barium meal or enema given on the day before one of these x-ray studies would affect their level of anxiety before and during the procedure.

Methods and results

Two similar studies were undertaken concurrently, one with patients having a barium meal for the first time and the other with those having a barium enema for the first time. These were performed in two London teaching hospitals with inpatients from all types of wards scheduled for either of these x-ray studies. Each of the samples of 58 patients having a barium meal and 70 having a barium enema was divided equally into experimental and control groups. In the former patients received a specially prepared explanation from one researcher, which took five minutes. Control patients received a visit from this researcher, who talked about unrelated topics for the same time. This researcher allocated patients alternately into experimental and control groups, while a second researcher tested their emotional responses, without knowledge of which group they were in. Self-report measures were used to rate emotional reactions. A mood adjective check list used by Lishman⁴ was completed by patients on four occasions over a 24-hour period. These occasions were: (a) as a baseline, early on the afternoon before the x-ray investigation; (b) late on the afternoon before the x-ray study, after the other researcher's visit, to assess any reactions to the explanation; (c) half an hour before the x-ray study; (d) within half an hour after the study, to describe feelings during it. Four anxiety scores were therefore obtained for each patient, the maximum score being 12. Experimental and control scores were compared at each of the four stages using the Mann-Whitney U test.⁵



Median anxiety scores in barium-enema study (70 patients).

Patients having a barium meal reported low levels of anxiety before and during this. There were no significant differences between experimental and control groups on any of the four anxiety scores. Patients having a barium enema reported high levels of anxiety during this (see figure). Those who had received the explanation were significantly less anxious than those in the control group during the x-ray study.

Conclusion

This study shows that explaining the procedure of a barium enema beforehand resulted in reduced anxiety. Barium meals were less stressful and explanation was also less effective in reducing anxiety.

Factors contributing to the stressfulness of a barium-enema study include waiting time in the x-ray department; moving about on the hard x-ray table; and the darkness and noise during screening. By far the most common complaint was the bowel preparation: soap enemas or the use of Dulcolax (bisacodyl) tablets produced equally painful results, and many patients were sleepless and exhausted before the investigation. Hence it seems important that doctors should recognise that the procedure is stressful and that prior explanation is beneficial.

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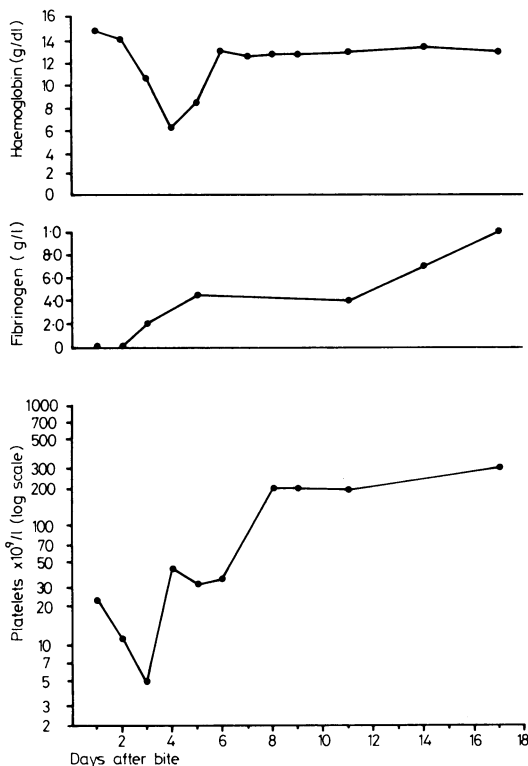
Severe envenomation from "harmless" pet snake

We report the first recorded case of severe envenomation after a bite from *Rhabdophis subminiatus*. This snake, commonly known as the red-neck keel-back snake, is widely distributed in South-east Asia¹ and is occasionally sold in pet shops in Britain. It has hitherto been considered to be non-venomous.

Case report

One of us (TMM) when a 24-year-old medical student, was bitten on the proximal phalanx of his left index finger by a *R subminiatus*, kept as a pet

after it had been provoked by rough handling. There were four small puncture wounds with transient numbness and paraesthesia but no specific measures were applied and the incident was soon forgotten. Next day he experienced mild nausea and malaise but continued to attend lectures and ward rounds as usual until alerted by passing black urine 20 hours after the bite. His blood was found to be incoagulable and he was admitted to this hospital for observation. There were no abnormal physical signs apart from minimal swelling around the site of the bite and slight jaundice. His urine contained glomerular casts and haemoglobin but no red cells. Fibrinogen was undetectable in his plasma by the gravimetric method and screening tests of coagulation were therefore unrecordable. Subsequent studies showed a depletion of other clotting factors (prothrombin 10%, factor V 17%, factor VIII 12%). The serum concentration of fibrinogen/fibrin degradation products was 512 mg/l; white blood count $8.6 \times 10^9/l$ ($8600/mm^3$) with a normal differential count; platelet count $23 \times 10^9/l$ ($23\,000/mm^3$); and haemoglobin concentration was initially normal (figure).



Haemoglobin and fibrinogen concentrations and platelet counts in patient suffering from snake envenomation.

Over the next two days a bleeding diathesis appeared with haematemeses, melaena, epistaxes, and massive extravasation of blood into the tissues around venepuncture sites. His haemoglobin concentration fell to 6.4 g/dl but pulse, blood pressure, and urine output remained stable. The blood film at this stage showed pronounced red cell fragmentation and microspherocytosis. Replacement therapy was started two days after admission and over the next four days he received a total of 10 units of blood, 10 units of fresh frozen plasma, 10 pools of platelet concentrate, and 4.2 g of fibrinogen. On the sixth day there were signs of improvement. Haemoglobin and platelet counts were maintained despite persisting blood film changes and hypofibrinogenaemia. Thereafter he recovered. The results of the coagulation tests became almost normal after two weeks. The snake was later identified as *Rhabdophis subminiatus* and its venom has been shown to clot plasma but not fibrinogen solution.²

Comment

The *Rhabdophis* genus has an envenomation apparatus in Duvernoy's glands and enlarged posterior maxillary teeth, but the latter are relatively small and inaccessible.³ The snake had previously inflicted a superficial bite on another student with no ill effects. The bite sustained by TMM was deep and prolonged owing to his reluctance to injure a "harmless" pet by forcibly removing it, and this may have been necessary for envenomation. There are reports of similar cases after bites by the related *R. tigrinus* (common in Japan and, again,

generally considered innocuous), in which haemorrhage followed handling and a prolonged bite.^{4,5} We conclude that *R. subminiatus*, which is freely imported into this country and sold as a non-venomous snake, is in fact highly venomous and particularly dangerous when handled. This may also apply to other species in the *Rhabdophis* genus and highlights the difficulties in distinguishing between venomous and non-venomous snakes.

We thank Professors J S Jenkins and P T Flute for permission to report this case, and Dr H A Reid and Dr N Arnold for advice and identification of the snake.

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³ Arnold, N, personal communication.

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Cimetidine for ulcers recurring after gastric surgery

The management of ulcers recurring after gastric surgery remains unsatisfactory.¹ Cimetidine aids healing of duodenal ulcers,² but its effect on ulcers recurring after operation is not known. Recurrent ulcers differ from duodenal ulcers as they may occur with a peak acid output (PAO) as low as one mmol/hour.³ We have performed a study to discover if cimetidine will encourage healing of recurrent ulcers even if the acid output is low.

Patients, methods, and results

All patients referred for treatment of ulcers recurring after surgery for peptic ulcer were included in an "open" study of cimetidine. Twenty-two patients entered the trial, but two died before the end of treatment. Of the remaining 20, 14 had undergone vagotomy and pyloroplasty, five Billroth II partial gastrectomy, and one proximal gastric vagotomy. Their average age was 49 (range 18-70), and three were women. Endoscopy and pentagastrin tests were performed before treatment with cimetidine, 200 mg three times a day with meals and 400 mg at night. The patient's symptoms were assessed every fortnight. After six weeks endoscopy was repeated and if the ulcer had not healed a further six weeks' treatment was given and endoscopy repeated.

Before treatment five of the 20 patients had had stomal ulcers, 11 duodenal ulcers, and four gastric ulcers. Mean PAO was 23.4 mmol(mEq)/h (range 1-63 mmol/h). Five patients had a PAO of less than 10 mmol/h and three less than 2.5 mmol/h. A pentagastrin test was not performed on one patient. After six weeks' treatment 17 ulcers had healed, and after 12 weeks 19 had healed. One patient's ulcer was 2 mm in size and nearly healed at six weeks; he had no symptoms and refused further endoscopy. In 12 patients gastric biopsy specimens were obtained before and after treatment and the severity of gastritis was unchanged. Initially dyspepsia had occurred in 19 patients; this was abolished in seven patients after two weeks' treatment, in 17 after six weeks', and in all after 12 weeks' treatment. Despite ulcer healing, other symptoms persisted in four cases. In two they were minor: bile vomiting and "stabbing pain over the heart." The two remaining patients were dissatisfied with treatment. In one, dyspepsia was replaced by severe lower abdominal and chest pain. The other never had dyspepsia, and his lower abdominal pain and diarrhoea were not affected by healing of the gastric ulcer.

Discussion

This trial has the disadvantages of all studies which are not double-blind. Nevertheless, the results suggest that cimetidine will aid healing of ulcers recurring after gastric surgery even if the PAO is low. Intra-gastric acidity was measured in one patient with a PAO of only 1 mmol/h; the pH was consistently below 2 and was effectively raised to above 5 overnight by cimetidine. Therefore cimetidine does act by