TABLE 1—Mean ($\pm$ SD) body weight and biochemical and haemostatic values in 11 men before and after treatment

	Before treatment	After treatment	p
Weight (kg)	76.30 $\pm$ 8.0	71.30 $\pm$ 8.0	<0.01
Blood glucose (mmol/l)	9.30 $\pm$ 4.8	5.90 $\pm$ 1.9	<0.05
Serum triglyceride (mmol/l)	5.20 $\pm$ 2.1	1.85 $\pm$ 1.0	<0.01
Serum cholesterol (mmol/l)	7.20 $\pm$ 1.6	6.10 $\pm$ 1.3	<0.05
Fibrinogen (g/l)	3.24 $\pm$ 0.6	3.15 $\pm$ 0.9	NS
Factor II (%)	143.80 $\pm$ 26.9	132.80 $\pm$ 34.6	NS
Factor V (%)	87.10 $\pm$ 12.8	80.00 $\pm$ 16.0	NS
Factor VII (%)	111.60 $\pm$ 35.2	87.80 $\pm$ 16.6	<0.05
Factor VIIc (%)	149.70 $\pm$ 73.9	91.30 $\pm$ 31.4	<0.01
Factor VIIIa (%)	125.90 $\pm$ 84.8	87.50 $\pm$ 55.4	NS
Factor X (%)	122.30 $\pm$ 27.5	108.00 $\pm$ 34.6	<0.05
Antithrombin III (%)	78.70 $\pm$ 13.1	69.80 $\pm$ 17.6	NS
Fibrinolytic activity (100/lysis time in hours)	7.82 $\pm$ 8.0	12.51 $\pm$ 11.2	<0.05

The clotting factor values in this table are based on the use of one standard; they are not directly comparable with values in other reports on the Northwick Park Heart Study based on other standards.
NS = Not significant.

blood glucose concentrations. All clotting factor levels fell and fibrinolytic activity increased, the changes being significant for factors VII, VIIIc, and X and fibrinolytic activity. There was a mean weight loss of 5 kg.

Discussion

In a study of 20 patients with hypertriglyceridaemia treated with phenformin and stanozolol there was a consistent reduction in serum triglyceride concentrations and an increase in fibrinolytic activity, but no other haemostatic variables were studied.⁶ Hypertriglyceridaemia was also the most obvious abnormality in the men in our study. The relation between serum triglyceride concentrations and the incidence of ischaemic heart disease is less clear than in the case of serum cholesterol. Two prospective studies have found that triglyceride concentrations make an independent contribution to the risk of ischaemic heart disease,^{7,8} while two have not established this.^{9,10} The 11 men we studied also had other metabolic abnormalities which are associated with an increased risk of ischaemic heart disease. Besides the very obvious fall in triglyceride concentrations,

the treatment was followed by a significant fall in mean serum cholesterol and mean blood glucose concentrations. Our study was not controlled by an untreated group and regression to the mean cannot be excluded as a partial explanation of the results. But the changes in the biochemical variables on the basis of which the men were selected for study were accompanied by changes in haemostatic function. These findings, together with the early prospective results of the Northwick Park Heart Study,¹ are compatible with the view that haemostatic function may be important in the pathogenesis of ischaemic heart disease.

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SHORT REPORTS

Motor neuropathy associated with cimetidine

Reported side effects of cimetidine include arrhythmias,¹ thrombocytopenia,² and coma.³ Peripheral neuropathy, however, has apparently not been described. We report two closely similar cases of motor neuropathy that may have been caused by cimetidine.

Case reports

Case 1—A 44-year-old woman admitted to hospital in status asthmaticus failed to respond to conservative management for 24 hours, and intermittent positive-pressure ventilation was therefore instituted. Over the next five days she improved, treatment including intravenous salbutamol, hydrocortisone 1 g daily, lorazepam, pancuronium, and phenoperidine as required, and cimetidine 200 mg six-hourly as prophylaxis against peptic ulceration. Intermittent positive-pressure ventilation was stopped and treatment changed to oral prednisolone and nebulised salbutamol only. She had developed severe weakness in all limbs, which was most pronounced distally and associated with areflexia. Sensory examination showed nothing abnormal. Within 48 hours motor function began to return, and within four weeks recovery was almost complete. During maximal weakness the cerebrospinal fluid contained no cells, and the protein concentration was 0.3 g/l. There was no detectable increase in serum antibody titre to *Mycoplasma*, common respiratory viruses, or Coxsackie B viruses.

Case 2—This 29-year-old woman in status asthmaticus failed to respond to conservative measures and began intermittent positive-pressure ventilation 36 hours after admission. Treatment was continued for nine days and included hydrocortisone 1 g daily, subcutaneous terbutaline 0.5 mg six-hourly, nebulised salbutamol, and infusions of aminophylline and cotrimoxazole. Phenoperidine, pancuronium, and diazepam were used as necessary in conventional dosage to permit ventilation and for sedation. Eight days after beginning ventilation she vomited altered blood and was given cimetidine 200 mg six-hourly to a total of seven doses. On stopping ventilation she was found to be weak, most pronounced distally (MRC grades 3-4), and areflexic. Sensory findings were normal. Serum potassium and calcium concentrations were normal, as was creatine phosphokinase activity (53 IU/l; normal 5-100 IU/l). There was no rise in antibody titres to common respiratory viruses or *Mycoplasma*. Result of the heterophile antibody test was negative. Cerebrospinal fluid was of normal pressure and contained 0.3 g protein/l; no cells were detected, and findings on virus culture were negative. Nerve conduction velocities were normal but the evoked muscle action potential was dispersed and of low amplitude (250 μ V in extensor hallucis brevis). Appearances on concentric needle electromyography—namely, fibrillation potentials, positive sharp waves, and bizarre high-frequency discharges with impaired recruitment—suggested axonal neuropathy. She recovered rapidly, with increase in strength within 48 hours, and recovered fully in eight weeks.

Comment

These patients presented with an exacerbation of longstanding asthma that did not respond to conservative treatment and necessitated

assisted ventilation. Both developed peripheral neuropathy. In case 2 nerve conduction studies and results of electromyography suggested axonal neuropathy, and clinically the two cases were remarkably similar. Muscle wasting was not observed, presumably because of rapid recovery. Postinfective polyneuropathy was unlikely in view of the normal cerebrospinal fluid and nerve conduction velocities.

A "poliomyelitis-like" illness may occur in children with status asthmaticus.^{4,5} Our patients, however, were adults, the weakness was symmetrical, and recovery was rapid and complete. In children the neurological deficit is commonly in only one limb, and severe residual flaccid weakness in the affected limb or limbs is the rule. Neither of our patients had been exposed to other toxins or agents known to produce axonal degeneration. Most of the drugs used are in common use for intensive treatment of severe asthma, and the only one not usually included is cimetidine. We suggest that in our patients cimetidine may have been neurotoxic, causing axonal degeneration.

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² Isaacs AJ. Cimetidine and thrombocytopenia. *Br Med J* 1980;280:294.

³ McMillen MA, Ambis D, Siegel JH. Cimetidine and mental confusion. *N Engl J Med* 1978;298:284.

⁴ Hopkins IJ. A new syndrome: poliomyelitis-like illness associated with acute asthma in childhood. *Aust Paediatr J* 1974;10:273.

⁵ Anonymous. Postasthmatic pseudo-polio in children. *Lancet* 1980;i:860.

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"Casualty overload" from the Southall riots

On 23 April 1979 riots occurred in Southall, Middlesex. Forty-seven casualties were subsequently admitted to the accident and emergency department of Ealing Hospital. We discuss the casualties, their management, and the problems that might arise in an accident and emergency department because of a riot.

Casualties and their injuries

Of the 47 casualties, 22 were policemen and 25 civilians. Of the four patients with major injuries, one had a head injury and subsequently died, one had head and facial injuries, one had an eye injury, and one a jaw injury. The remaining 43 patients had minor injuries, which included 24 contusions, 21 lacerations, and two penetrating wounds; 31 of these were to the head, 10 to the limbs, and 5 to the trunk. Six patients were admitted, two were transferred to special centres, and one died.

The casualties arrived over seven hours (see figure), the peak occurring between 7 and 8 pm, when 25 casualties arrived.

Special arrangements

Because of the possibility of riots we made advance arrangements to receive a large number of casualties. The work of the department continued as normal except that the largest treatment area—the stretcher/cubicle area—was taken over for the reception and sorting and emergency treatment of the riot casualties. Minor cases were quickly transferred from the latter area to the minor treatment area, which was next to it. The consultant in charge of the department sorted casualties according to a standard system of priorities into major and minor cases. Of the four major cases admitted, only one was classified as priority 1—immediate; this was a case of head injury with signs of extradural haemorrhage. There were no urgent cases (priority 2), and the remaining three major cases were non-urgent (priority 3).

Staffing—The two senior house officers (SHOs) on duty were allocated to the reception and sorting area, one additional SHO was provided from an

Attendance at accident and emergency department of riot casualties compared with normal work load.

agency to deal with the flow of the normal accident and emergency cases, and an orthopaedic and a paediatric SHO were brought in for the treatment, mainly suturing, of the minor casualties. The anaesthetic SHO was called in for resuscitation duties. The three additional SHOs were on call for the accident and emergency department and remained there for about three and a half hours. The nursing staff cover was normal for peak periods of the day and consisted of two sisters, three staff nurses, and six student nurses. Some of the day staff remained on duty until the incident was cleared. The receptionist on duty was reinforced with three medical records officers, and the two porters on duty were reinforced with four others.

Documentation and equipment—The casualty cards of the casualties were marked with a red asterisk. Documentation was carried out in the reception and sorting area. A police documentation centre was sited in the outpatients department. Because of the minor nature of most of the injuries, no provision was made for extra equipment apart from some extra trolleys, which came from the operating theatre recovery area under an existing arrangement.

Comment

A major accident¹ is defined as any incident which requires special arrangements because of the number of casualties. The arrangements to deal with casualties from the Southall riots did not invoke the major accident procedure and were based on the use of the accident and emergency department as a casualty clearing station. They allowed for the economic use of staff, the best use of space and facilities, and adherence to the daily routine as much as possible. Casualties from the riots arrived over seven hours, and our arrangements for dealing with them were adequate, despite a peak flow of 25 cases in one hour.

The commonest injury, both major and minor, resulted from trauma to the head. Although most of the casualties suffered minor injuries, they had to be cleared quickly from the reception area and treated and dispersed as speedily as possible. The main problem in achieving this aim was excluding the possibility of internal injuries or major head injury in patients who arrived in the department frightened, confused, and dazed. In many cases we had to detain patients for observation and subsequent diagnosis rather than delay the management of other apparently more urgent cases waiting to be seen and also to prevent the chaotic consequences that can develop in an overloaded department. For the same reason we paid great attention to the rapid turnover of x-ray examinations, the suturing of wounds, the documentation of casualties, and the movement of casualties, with the use of an adequate number of porters.

In discussing disaster procedures Rutherford¹ refers to people at the site of a bomb explosion being afflicted by a sense of terror and becoming unable to speak or decide what to do. A similar sense of terror must have been engendered at the Southall riots. Lord Moran² distinguished between two states of fear in war: so-called shell shock—what he designated "commotional shock"—and emotional shock, in which a man is frightened only by his thoughts. Most of the casualties from the Southall riots suffered only minor injuries but when first examined could perhaps be described as being in a state of commotional shock. On the other hand, some attendants arriving with the casualties seemed to be afflicted by emotional shock and were overanxious about the casualties. It soon became evident that the relatives of casualties from different factions involved in the riots might behave aggressively towards each other, and at an early stage all relatives were directed to an area isolated from the department. Fortunately, we did not have to segregate walking casualties from