

the ability of the red cell membrane to deform, so these red cells are delayed in the reticuloendothelial system, allowing them to be haemolysed and phagocytosed, usually in the spleen. Their presence makes an easy laboratory method of showing oxidant damage to haemoglobin by drugs.

CHRONIC POSTHAEMORRHAGIC ANAEMIA

Probably the most common drug-induced haematological condition is chronic posthaemorrhagic anaemia resulting from taking aspirin or aspirin-containing drugs, often self-prescribed, and causing occult peptic bleeding. Aspirin can produce such an anaemia in two ways—by local irritation of the gastric mucosa and by fundamental and life-long damage to circulating platelets. Thus the effect of two aspirin tablets may be shown by in-vitro platelet function tests for at least a week. Most of the anti-inflammatory agents used in chronic painful joint conditions may also produce gastric erosions or occult peptic blood loss. Many patients have indigestion or occult bleeding or both (and these two problems are often disassociated) with one anti-inflammatory drug, but none with another. Gastroduodenal blood loss may, of course, be much more overt and acute with any of these drugs.

HAEMOSTATIC DEFECTS

The production of haemostatic defects by drugs tends to be intentional and the main action, as with the oral anticoagulants (warfarin, coumarin, and the indanedione derivatives), the parenteral anticoagulants—for instance, heparin—and the drugs producing controlled defibrination, such as streptokinase and anrod. Drugs such as aspirin and dipyrimadole are now being considered in the prophylaxis of further arterial thrombosis both after myocardial infarction and in transient ischaemic cerebral episodes. Thrombocytopenia has been mentioned earlier.

Lastly, some drugs will affect the blood in its role of monitor to the health of the body. Eosinophilia, and sometimes basophilia, may occur as indications of allergy, where perhaps the target organ of the drug is the skin. Similarly, the LE cell phenomenon can be shown in the blood of some patients having procaineamide and hydrallazine, and these patients often develop the systemic features of systemic lupus erythematosus.

Drug-induced disease has been particularly well demonstrated with regard to the blood cells because of the ease in biopsying these cells. This has led to daunting lists of drugs that may upset blood cells, and since blood is such a complicated organ, the difficulty is often to unravel the mechanism of the damage.

Letter from . . . Chicago

Persian letter

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Usbek to his friend Rustan in Isfahan.

I came to this inhospitable climate towards the end of February, when icy blizzards were mercilessly pounding the city and more than 90 inches of snow had already fallen, covering the streets and sidewalks with an impenetrable frozen arctic layer. At least 100 people were said to have died from shovelling snow and pushing cars or snowblowers; hospitals reported numerous injuries from people falling off roofs while trying to clear the snow; and the incidence of frostbite injuries—aggravated by the cooling effects of the salt dumped on the roads—reached alarming proportions. Everybody was getting fed up, and psychiatrists were reporting an epidemic of “blizzard blues,” with anxiety, depression, and irritability over being shut in, over fighting the snow and the traffic, over having one’s car constantly stuck in the ice. Even getting to work and back was quite an accomplishment, and, with tempers growing short, arguments, slammed doors, and other outbursts were reported to be on the rise, while many people became depressed, sad, and preoccupied with the past, losing their appetite or eating, drinking, and smoking more, and feeling constantly worn out. Even watching TV or reading the

newspaper was exhausting, because when the news was not about the trouble in our dear homeland and how we would stop sending oil, it was about the cold and the wind and the snow, and also about the problems of the economy.

President’s promises

The President, as usual, said that the state of the nation was sound; and both he and his vizier promised again that they would set up a health system as good as that in Britain, if not this year then the next, or may be in five years. They also promised once more to cut hospital costs and hoped the mullahs in Congress would go along with another draft of the by now legendary Cost Containment Bill. But the Ayatollah Kennedy did not think this was good enough and held a popular circus, in which he scientifically matched people who went broke from being ill in the US with people who came out ahead from having identical symptoms in Canada. The American Medical Association retorted by publishing accounts of many doctors who, disappointed with the Canadian system, have migrated to the US; and everybody now expects the ayatollah to publish lists of patients who, disappointed with American doctors, have emigrated to Canada.

The health-dervishes, meanwhile, were still busily writing about the catastrophic problems of American medicine and in particular about the need for controlling costs, preventing unnecessary surgery, beefing up peer review, etc, which at least gives them something to talk about, especially since, as Mr David Greenberg¹ recently pointed out, they invariably end up

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by despairing of "getting anything done." It appears, moreover, that most Americans basically like their present health-care system,¹ having a truly irrational horror of sudden changes, public executions, and revolutionary komitehs. So that the would-be reformers eventually give up in despair, returning to the more hopeful task of reforming the admissions committee at the medical school, or even changing sides and accepting a job on the other side of the fence.

But speaking of fences, one particularly expansionist private hospital in Chicago, having bamboozled the planning agencies into allowing a considerable expansion of beds in an already overbedded city, promptly set about constructing, and in the middle of the most unappetising weather closed off one of the main streets leading to three of the city's main public hospitals. At first it was thought that the closure would be temporary and that the need to take an inconvenient detour would vanish with the snow. But subsequently it turned out that the closure was for good, the hospital having quietly bought the street from the city fathers in a deal that was concluded as discreetly as possible—for it is thus that business is done in the "city that works." There were protests and rallies and newspaper editorials, and many people displayed buttons urging the reopening of the street—all about as effective as wearing buttons to move the Russians out of Czechoslovakia. And while the cars and ambulances continued to pile up in narrow side-lanes it was reported that the street in question would eventually be converted into a well-appointed mall; and the fashionable hospital's public relations director tersely announced that the street had been closed to help solve a delicate problem in patient care delivery.

Infallibility of doctors

Also during the snow a public aid recipient walked into the doctor's office, rather puzzled because "they" had said he needed an operation. On producing the card bearing the bad news, it turned out that this was merely the Government's way of informing patients that doctors are not always infallible, especially when it comes to deciding about surgery, and that if you were offered an operation free of charge you could also get a second opinion free of charge, to save other people's money and your own uterus or gall bladder. Several insurance companies have also set up similar programmes, hopefully more explicit ones, offering to pay \$50-100 for another opinion—but so far most patients have apparently been reluctant to seek second opinions before surgery, at least in part from fear of alienating their doctors. And in another cost containment move Blue Cross recently announced it would no longer pay for routine "admission batteries" of diagnostic tests unless specifically ordered by a doctor for that patient, the point of this change in policy being to encourage the doctors to think (about the cost of procedures routinely ordered) and to save \$200 million a year. The announcement was greeted by the press as one giant step forward in the battle against inflation—but one hospital promptly announced it would henceforth require doctors to order the self-same chest radiographs, ECGs, and electrolytes, even when they admit patients merely for the work-up of the metabolic complications of ingrowing toenails.

You may also be interested to hear, my dear Rustan, that the doctors in this country are full of knowledge and wisdom, and that if patients disobey instructions they may actually be dragged into court. Such was the case of the parents of the little boy who had been subjected to all the cytotoxic agents known to man, who were enjoined by a New England court to stop supplementation with laetrile and vitamin A. The doctors apparently feared that the cyanide and vitamin would kill not only the leukaemic but also the non-leukaemic cells. But the parents, who had already submitted to the first court order mandating that they had to allow the doctors to use cytotoxic drugs, now thought otherwise and fled to a country called Tijuana, which was an excellent move because in that happy land you can take as much cyanide and vitamin A as you can lay your hands on, as well as not

developing frostbite or blizzard blues in the sad days of February.

Meanwhile a professor of hospital administration has come up with the comforting news that although doctors' fees will not keep up with inflation this year their income will not suffer, since they will make up by providing more and higher-priced services. Several states are thinking about allowing nurses and pharmacists to prescribe drugs, an excellent idea which will prove to be a boon for the manufacturers of multivitamins, tranquillisers, hypnotics, cathartics, and cod-liver oil. In Colorado there is a plan afoot requiring doctors to submit estimates of bills before admitting patients to hospital—another happy idea, which brings the medical world in line with the car-repair shops, as well as confirming Hippocrates's (or was it Charcot's?) contention that doctors should be well versed in the art of prognosis. But those who hoped that computers may help solve some of these problems will be disappointed to hear that Boris is an utterly brilliant—but idiotic—chess opponent, who thrives on other people's mistakes but cannot conceive or initiate a winning strategy on his own.² Available in pocket size for a paltry \$250, he may need considerable re-education to stop thinking about girls and chess and help the nurses in dishing out tranquillisers, or predict how long it would take for the stomach to stop bleeding, for the snow to stop falling, or for people to stop falling off roofs in the middle of winter.

Spring fever

But at last, my dear Rustan, Boris came up with a favourable prognosis report, and the snow began to melt in a torrent of brown slush, and the floods were so bad that much of the State had to be declared a disaster area. Yet with the sun continuing to shine brightly, the President took off to see the Pharaoh and the Prophets of the Israelites, and the people stopped brooding about the love-life of the late Mr Rockefeller, but instead came out into the open, standing around at street corners like in our beloved Isfahan, and blasphemously celebrating the memory of the great Irish saint. Then they went to the polls in the mayoral primary to defy the invincible Chicago Democratic machine with its army of 3100 precinct captains and 25 000 city patronage workers, and threw out the man who had unsuccessfully tried to fill the late mayor's big shoes, thus interrupting a 50 years' tradition of undisputed machine victories. They were irked, the people, in this unprecedented exercise in democracy, by the inept way in which the snow removal had been handled, by the city officials having their own blocks cleared first and then gloating on television about what a wonderful job they had done, about a phony \$90 000 contract for a snow removal plan to a city protégé who apparently merely wrote a dissertation on the subject, and about the trains running badly or not at all, and at times bypassing the Black suburbs in order to run on time.

So the unbelievable happened, starting with an eclipse of the sun on 26 February, and even Boris in his wildest programmatic ravings would not have predicted that Mrs Jane Byrne, a little blonde lady who goes to a beauty parlour and does not smoke big cigars, would singlehandedly upset the system and throw out the incumbent mayor. At first it was feared that this extraordinary populist outburst would mean the end of the machine; but it was soon remembered that the lady, having been the late Mayor Richard Daley's political protégé for many years, would undoubtedly have the political wisdom to make the kind of accommodations that in Chicago, as well as in our beloved homeland, are required to maintain the precarious balance between the one and the few and the many, and preserve the peace and stability which we all fervently desire.

From Chicago, the 16th of the Moon of Safar.

References

- ¹ Greenberg, D S, *New England Journal of Medicine*, 1979, **300**, 211.
- ² Harris, S, *Chicago Sun Times*, 24 February 1979.