documented in patients with upper motor neurone paralysis secondary to spinal cord injury, tumour, or cerebrovascular accidents.² Nicholson³ described a child suffering from diffuse lower motor neurone disease who had a cardiac arrest three minutes after receiving intravenous suxamethonium. Sinus rhythm returned after external cardiac massage and the serum potassium concentration 15 seconds after the arrest was 7.9 mmol (mEq)/l. Experimental studies⁴ suggest that denervation appears to sensitise the muscle cell membrane to suxamethonium, leading to the release of substantial amounts of potassium. This hyperkalaemia is a transient phenomenon lasting for only three to seven minutes and many of the dysrhythmias it causes resolve spontaneously.

It may be relevant that our four patients had all had severe muscle weakness for a long time. We have not found such arrhythmias in patients with acute polyneuritis in whom bronchoscopy, tracheal intubation, or tracheostomy was performed at an early stage in the illness under anaesthesia with thiopentone and suxamethonium. This observation is in keeping with the laboratory findings of Stone,⁵ who showed that suxamethonium-induced hyperkalaemia in dogs with transected sciatic nerves and spinal cords was a time-related effect, maximal at 28 days. Clinical reports on patients with upper motor neurone lesions also suggest that suxamethonium-induced hyperkalaemia does not occur during the first three to four weeks of paralysis.^{1 6 7}

Apart from these four patients we have ventilated only one other patient with relapsing polyneuropathy, a 34-year-old woman in whom two separate tracheostomies were performed two years apart under general anaesthesia. No arrhythmias occurred with these procedures but on neither occasion was the patient given suxamethonium.

Our case reports provide circumstantial evidence that

suxamethonium may produce life-threatening, though fortunately easily treated, ventricular arrhythmias in patients with chronic or relapsing polyneuropathies. Although this effect may not occur when suxamethonium is given soon after the onset of muscle weakness in acute cases, it seems wise to avoid suxamethonium and consider using a non-depolarising agent in all patients with polyneuropathy who require muscle relaxation during general anaesthesia.

We thank Dr C Mawdsley, Dr E H Jellinek, and Dr B Ashworth for permission to publish the case reports on their patients, and Drs Slawson, Davies, Donnelly, and Barrie for help with anaesthesia and resuscitation. We are also grateful to Miss Allison Gillespie for secretarial assistance. RJF is supported by a research grant funded by Astra Pharmaceuticals and Glaxo Group Research.

References

- ¹ Lichtenfield P. Autonomic dysfunction in the Guillain-Barré syndrome. *Am J Med* 1971;**50**:772-80.
- ² Cooperman LH. Succinylcholine-induced hyperkalemia in neuromuscular disease. *JAMA* 1970;**213**:1867-71.
- ³ Nicholson MJ. Circulatory collapse following succinylcholine: report of a patient with diffuse lower motor neurone disease. *Anesth Analg* 1971;**50**:431-7.
- ⁴ Gronert GA, Lambert EH, Theye RA. The response of denervated skeletal muscle to succinylcholine. *Anesthesiology* 1973;**39**:13-22.
- ⁵ Stone WA, Beach TP, Hamelberg W. Succinylcholine-induced hyperkalemia in dogs with transected sciatic nerves or spinal cords. *Anesthesiology* 1970;**32**:515-20.
- ⁶ Stone WA, Beach TF, Hamelberg W. Succinylcholine danger in the spinal cord injured patient. *Anesthesiology* 1970;**32**:168-9.
- ⁷ Cooperman LH, Strobel GE, Kennell EM. Massive hyperkalaemia after administration of succinylcholine. *Anesthesiology* 1970;**32**:161-4.

(Accepted 22 October 1980)

Reading for Pleasure

Grandfather's footsteps

R C HUMPHREYS

Sometimes between the pages
I still smell frangipani,
Between others, damp bamboo.

When, as a boy, I read my grandfather's diary and letters I had never heard of André Gide but consciously felt, as he did, that one read a writer not merely to get an idea of what he said but to go off with him and travel in his company. My grandfather was a Victorian and long dead in the 1930s when, through his diary, I joined him in Singapore on 28 May 1889 to "seek what riches might be hidden in the form of gold or other precious metals among the rocky highlands of Pahang." The journey started on the coasting steamer *Sappho*, which took us up the Straits of Malacca and picked its way into the jungle-hidden mouth of the Klang river. We disembarked at the village of Klang and travelled

the 19 miles to Kuala Lumpur by train. KL looks different now. In 1889 there was no hotel, and the resthouse was dirty and dilapidated. My grandfather and I were fortunate in that the Punjom Mining Company's agent invited us to stay with him and he helped us to enlist coolies and obtain provisions before we set out on foot into the interior.

When we left Kuala Lumpur by road, walking was easy, but this soon became a jungle track with rivers to be waded and baggage to be dragged by ropes up precipitous rocks, while leeches and violent thunderstorms compounded the discomforts of a journey which lasted many days and eventually finished in a dug-out canoe. I had to hide my head under the bedclothes when I heard his dog whine and tremble when we were being tracked by a tiger.

I was fascinated by his letters to Messrs John Little and Co of Singapore. "Please send: Claret (St Julien) 1 doz pints; Whisky (Old Glenlivet) 1 case; 1 keg corned beef; $\frac{1}{2}$ doz table napkins; 1 butter dish; 1 sugar bowl." This and similar orders were being sent while a letter home records that "Jolly and Jones have been away in the jungle for eleven days but Jolly says they

Crickhowell, Powys

R C HUMPHREYS, MD, FRCGP, general practitioner

have not yet found the philosopher's stone." Within the framework of jungle living, the table napkins must have preserved the usages and customs at table of a British gentleman at home and abroad.

The concepts engendered were wholly romantic and moth and rust had started to corrupt the fabric of empire before the ethical basis of the imperial theme was first challenged and eventually destroyed. Grandfather would probably not have been pleased that in the late 1940s in a very minor way I abetted in the dismemberment of his ideal. But the shadow of empire fell on my generation and has influenced my reading, which is part pleasure and part propitiation of a forebear who was guided by the mores of his time.

Echoes of empire

Perhaps these reading requirements have best been met by James Morris's trilogy about the empire. The first volume, *Heaven's Command*, deals with the imperial progress from Victoria's accession until the diamond jubilee in 1897. It is the story of the flag following commercial enterprise—until the later years, when the flag usually went first. The second volume, *Pax Britannica*, deals with the climax of empire and takes an overall view of the circumstances at the time of the 1897 jubilee with all its splendours and absurdities, its humanity, and its brutality. The last volume, *Farewell the Trumpets*, depicts the imperial retreat from 1897 to the death of Sir Winston Churchill in 1965. Though accurate, it would be unfair to describe the trilogy as anecdotal history related in an easy, journalistic style. It is much more than this and the author's scholarship and insight, subtly blended with humour and a singular capacity to see how it all went wrong without the censorious apportionment of blame so much in evidence in other authors, make for comfortable reflective reading.

Less comfortable and in rather more acid terms, but wholly enjoyable, Tim Jeal's biography, *Livingstone*, portrays an aspect of empire more in keeping with the 1970s view, whereby the Victorian hero myths are translated into real history and the feet of clay so elaborately covered with Victorian fustian begin to show inelegantly as the feet on which the empire stood. The last decade has produced no shortage of detractors from the seeming glories of empire, and in a mildly abrasive way the true purposes of history are well served by them.

Initially, commerce may have preceded the flag but with the flag came soldiers, and a little-known book, *Old Soldier Sahib*, by Frank Richards, gives an illuminating account of life as an "other rank" in India at the turn of the century. Richards served in the Royal Welch Fusiliers, later with Robert Graves, who wrote a foreword to the book and lent literary support to his old comrade in arms. As a chronicle, it is living Kipling.

The imperial motive requires a determination to defend what is held and the years 1914-18 saw a watershed of empire, when Robert Graves and his peers joined battle in high imperial confidence and those who survived returned to an empire larger than ever before but with a discernible loss of will to promulgate the ethos of empire which has gathered momentum for 45 years—by which time the glories of Victoria followed hard on the heels of the glories of Caesar and Alexander the Great. It took the authors and poets of the first world war to identify this change of heart, and the Siegfried Sassoon who wrote *Memoirs of a Fox-hunting Man* was not the same person as the one who bitterly completed *Memoirs of an Infantry Officer*. In Robert Graves's autobiographical *Goodbye to All That*, for all its well-staged stiff upper lip drama, I detect a disillusionment with the appurtenances of power. And David Jones's *In Parenthesis* paints a word picture of the holocaust, again with Anglo-Welsh colouring in a form of English that transports us from the English of Victoria's empire, that amalgam of Old Testament and Part 1 Orders in copperplate, to a verbal impressionism which developed down the line to Dylan Thomas. Though his allegory preserves the old order, his language gives

us the new. Literary impulse seemed to flourish in the mud more than the imperial impulse, and who could fail to be moved by the well-known writings of Edmund Blunden, Isaac Rosenberg, or Wilfred Owen? Even so, a lesser-known work I would commend is *With a Machine Gun to Cambrai* by George Coppard. This is another book written from the ranks. So many personal records of military history are written by officers of varying degrees of seniority and one forms the impression that they often simply purport to show the influence which the decisions of the author had on the battle and its outcome. George Coppard tells us what he was told to do, how he tried to do it, and what happened. He records suffering factually, but as doctors we are familiar with suffering and pain and the varied responses they elicit, which lends special meaning to Leon Wolff's *In Flanders Fields*, Lyn MacDonald's *They Called it Passchendaele*, and Paul Fussell's *The Great War and Modern Memory*.

The events in Flanders may have awakened the British from their imperial dreams, but the frank acknowledgment of decline in widely read prose was slow to appear. The decline of empire is well recorded by Colin Cross in *The Fall of the British Empire*, but for the flesh and blood processes seen through the eyes of characters almost too real to be fictional I found *The Raj Quartet* by Paul Scott a gripping and revealing social history of the period when the British role in India was coming to a muddled close in an atmosphere of regret, reluctance, and enthusiasm. The four books, *The Jewel in the Crown*, *The Day of the Scorpion*, *The Towers of Silence*, and *A Division of the Spoils* cover a period which starts when the Japanese armies were pounding at the gates and continues to the time when the last troopships were leaving Bombay. The nuts and bolts of the arrangements, including Mountbatten's role, are set out in all their violent disorder in a well-researched book, *Freedom at Midnight*, by Larry Collins and Dominique Lapierre. And for those who wonder what it was like for the British who did not leave, Paul Scott obliged with *Staying On*, in which Tusker Smalley, in company with many thousands of his countrymen of former times, stayed on and will remain until the end of time.

Poor André Gide. He was 82 when he died. He must have been truly exhausted by his literary travels by the time he came to his Nobel prize.

Under what circumstances should an antibacterial agent be prescribed for ulcers on the toes and feet of diabetic patients? Is there any evidence that antibacterial treatment speeds the healing of ulcers that do not look infected?

Ulcers of the feet in diabetic patients are due to a mixture of ischaemia, neuropathy, and sepsis, and in the individual patient it is important to assess which of these factors are present. For example, a purely neuropathic ulcer without infection may well heal with careful attention to foot hygiene and relief of pressure, while an ischaemic ulcer may need some form of surgery. While infection should always be treated by an antibacterial agent, it would be difficult to obtain evidence that such treatment hastens healing of ulcers that are not infected. Chemotherapy is not recommended *provided* one can be certain that there is no infection.

From May to October 1980 there was in the area of the Greater Glasgow Health Board a fall varying between 15% and 20% in the number of new weekly claims to sickness benefit when compared with similar periods over the past three years. Is this a general phenomenon throughout Britain? Is the nation becoming healthier?

During the six month period May-October sickness absence claims in Britain fell in comparison with the same period last year. In Scotland the fall was 11.5%, in England and Wales 9.7%. The reason for this is not clear. Sickness benefit claims reflect several influences other than the incidence of disease—for example, job satisfaction—and it is unlikely that the fall indicates improved health. A possible explanation is rising unemployment, for people who are receiving unemployment benefit may tend not to claim sickness benefit.