My Student Elective

Parasites and piranhas: a journey round Guyana

JANETTE CLARKE

Sisters lie next to Brothers, and Experience separates Catherine's Lust from Shumaker's Lust. I am not quoting from a racy novel, but from the coastal map of Guyana. The chequered history of this impoverished country is shown in such unlikely place names. Although Jonestown hit the headlines in 1978, the ex-British colony is known chiefly for its sugar and rum from the Demerara district. Guyana lies just above the equator on the north-east coast of South America. It has many rivers cutting through rain forest and the Rupununi, the southern savannah. The country is sparsely populated, and the 750 000 people are concentrated on the coastal plains. Africans and East Indians predominate in the racially diverse society, and the main work is cutting sugar cane and farming rice. Nine tribes of Amerinds are scattered around the interior, hunting, fishing, and farming along the rivers. Georgetown must be one of the few capitals where cattle graze on the central

reservations of major roads, and occasional anacondas and alligators visit the market.

Filariasis

I went to Guyana to learn about filariasis, the disease we all remember from pathology for its unfortunate effects on a gentleman with a wheelbarrow. I saw many less spectacular cases of elephantiasis in my 1500-mile journey round Guyana. Bancroft's filariasis is endemic along the coast of the country, and an estimated 10 million people are afflicted in South America alone. Filariasis is both a fascinating pathological and medical puzzle and an important economic problem to a developing country. The active disease is diagnosed by looking for microfilariae in peripheral blood taken at night, and little equipment is needed.

Georgetown Public Hospital was my base for 10 weeks. I gained confidence in the preparation and staining of nocturnal

blood films, under the watchful eye of experienced technicians. They screened army recruits; of 30 fit young people tested each night two or three would be referred to the weekly filariasis clinic. The success of diethylcarbamazine in early cases was heartening, and valiant efforts were being made with chronic cases. Hydrocele and haematuria were commonly associated with filaria. Elephantiasis in a leg is a painful and ugly disability that limits mobility, confining some people to their houses or even to bed.

The last survey of Guyana found microfilariae in 9% of the coastal population. Eighteen years on, I decided to survey inpatients of four coastal hospitals to gain an impression of the current prevalence. I left the wards of Georgetown Public Hospital and travelled to New Amsterdam, Suddie, and Skeldon. The coastal roads are recently surfaced, but progress is hampered by paddy rice drying on the tarmac and cows chewing cane dropped on the road by passing trailers. The Essequibo and Berbice rivers are crossed by heavily loaded car ferries, and the Demerara River boasts an impressive 2 km-long floating steel bridge. All the hospital staff were interested in my study and were helpful, particularly in translating into Creolese my requests for fingerprick blood samples. The older patients were full of superstitions about "big foot." I was told elephantiasis was due to a cold in the foot or even to a crappo (the hideous local toad) blowing on the foot, and a hydrocele was blamed on injury.

Meeting the Amerinds

I was invited to visit the family of a laboratory worker who lived in the interior. Arapiaco was a tiny Amerind community of homes in clearings along the Pomeroon River, which was the only means of transport and communication: children, in

Amerind women preparing cassava.

immaculate uniforms, paddled to school in tiny dugouts, and giant pontoons carried hardwood to sawmills downriver. I found it very peaceful surrounded by the rain forest, watching multi-coloured parrots and butterflies fly around the clearing. I refused to join the children bathing in the piranha-infested river, despite their reassurances that it was quite safe after splashing the surface to scare the fish away—only after an accidental ducking was followed by a correct digit count was I convinced.

Another opportunity to meet Amerinds, this time on dry land, came in my visit to Lethem. I travelled to the Brazilian border intending to drive to the Pakaraima foothills to sample for two non-pathogenic species of filaria (*Dipetalonema perstans* and *Mansonella ozzardi*). I was told the roads north were washed away in the rainy season, so I sampled in the area around Lethem, which is the capital of the Rupununi and the southern base of the Malaria Eradication Programme. Transport was a big problem to the programme workers, who keep malaria away from the coastal plain. The vehicle-destroying dust tracks and the cost of fuel restrict the effective cover of the grasslands, and the semi-nomadic lifestyle of the Amerinds compounds the difficulties. This area reminded me of the Wild West, with cowboys herding beef across dusty plains. I never expected the

local bar to boast a disco floor complete with strobe and synchronised sound and light. Another stark contrast was seen across the Takutu River. The shops in Brazil were full of imported food, televisions, and calculators. The village of Bonfim also boasted a small hospital with resident doctor and dentist—both rare commodities in Guyana.

The emphasis on Guyana's status as a Third World country was tempered by many fond memories of the hospitality of the Guyanese. I was fascinated by their obsessions with cricket, dominoes, and Jerry Lewis films. Their medical problems were, however, legion. My survey of 300 patients showed an overall microfilariasis prevalence of 5%, and none of the patients with positive results showed any physical signs of filariasis. I saw tropical diseases and worldwide conditions such as diabetes dealt with by doctors working to the limit of the resources available. Many electives in developing countries leave lifelong impressions, and I'm sure my visit to the land of adventure will provide evergreen memories.

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MATERIA NON MEDICA

The Monte Rosa cat

My wife and I cheat a lot. On the first day we scrambled to the Hörnli hut on the north-east buttress of the Matterhorn. In appalling weather, we took one look upwards at the next section of the ridge, turned tail, and trudged back to the cablecar through the September snow.

We cheated the next day as well. In a discouraging drizzle we took the Gornergrat rack-and-pinion railway to Riffelberg, deserted in the early morning but already high enough above the cloud for us to laugh at the valley-bound tourists. Some would say it was an extra cheat to leave our children behind in England. For a few days each year we think not: they prefer housekeeping without us anyway.

The weather cleared with each minute and the final pyramid of the Matterhorn appeared at a thoroughly improbable elevation, sitting on the remains of the cloud that rose from below. It was near here, some years previously, that I had come across an elderly Frenchman studying chamois through binoculars. He had already walked several miles on steep tracks, and it was only with difficulty that I prised from him his age: 83, humble and grateful that an outdoor life had enabled him still to see clearly and to climb strongly.

As the path emerged on the steep hillside that fell to the Gorner glacier, we were greeted with the blood-curdling shrieks of two marmots, warning their families that potential pelt-hunters were arriving. We wanted to tell them that we regarded these rocky slopes as their territory and not ours, but a passing dog disagreed, chasing them downhill towards the glacier. They found their holes before the rascal reached them.

With sun and snow shining all around, we decided to try to reach the Monte Rosa hut, a trip which entailed a mile and a half of glacier crossing. As we ventured on to the ice the mist rolled up the ice, cutting our visibility, and the marker poles with their luminous orange tops seemed rather too far apart for comfort.

The glacier is split by a central moraine, and it was as we scrambled across this that we heard the miaow. Admittedly our knowledge of wildlife is limited, but this was definitely a cat—a small, black, intelligent, fit-looking moggy. Instinctively Ann longed to pick him up to stop him falling down a crevasse, but I intervened. It was just as well, because we soon found out that his cries were not from distress but from anxiety to show us the correct way to cross the second half of the glacier. Unerringly he then led us up the constantly changing zig-zags of scree which arrive at the Monte Rosa hut, where he claimed his guide's fee: two large rinds of Emmentaler cheese.

As the three of us enjoyed our lunch, closely looked down on by the Breithorn, Castor, Pollux, Lyskamm, and the Monte Rosa itself, we heard that our feline companion had climbed without difficulty to the top of the Dufourspitze, whose castle-like summit topped all else around us. As we prepared for the return trip and donned our mini-

crampons we counted our blessings and noticed the advice on our map: "Monte Rosa hut—guide advisable for inexperienced tourists." We hope he's there next time.—PETER MOFFITT (general practitioner, Bristol).

Islam

It was at one of those long evening medicopolitical meetings we know so well when quite unexpectedly someone raised the subject of religion. There was an embarrassed silence until one doctor seized his opportunity and announced boldly that, for his part, he was a devout Mohammedan. The embarrassment dissolved into laughter and I thought I had quite forgotten the incident until several years later when I was in Toledo Cathedral and the mass of the Mozarabics, or "would be Arabs," was being celebrated. This service dates back to the five centuries of Moorish occupation of most of Spain, and even lives on today in our Church of England services. A copy of the liturgy is thought to have reached Cranmer, who was so impressed by the beauty of the prayers that he incorporated some of them into our prayer book: "Dearly beloved brethren, the scripture moveth us . . ."; and parts of our collects at Christmas, Lent, and St Andrew's Day are straight translations or adaptations of the Mozarabic rite.

Not surprisingly the attitudes in Northern Spain were quite different as a result of the history of the kingdoms of Castile and Aragon in the medieval wars. The monks of Cluny were not slow to establish a cathedral at Santiago de Compostela as a shrine to the Spanish Patron, Saint James. Thus a pilgrim route was formed across Europe, linking Jerusalem, Rome, and Santiago. One remarkable feature of this cathedral is the enormous censer which has to be attached to chains hanging from the roof. Apparently the censer is so huge because the weary and possibly sick pilgrims arrived at Santiago with nowhere to sleep except at a hostel, with the result that many overflowed into the cathedral itself. Since there were no facilities to "freshen up," the incense from the censer served a practical as well as a religious purpose.

But what comparison can one draw between the way the Spaniards have preserved the ringed finger of the practical St Theresa of Avila in a reliquary in the sacristy there, with Bernini's sensuous sculpture of her in a state of spiritual ecstasy? Are such extremes of beauty and grimness compatible? Apparently so, when it is realised that one enlightened Islamic group, in their attitude to other faiths, considers that in the tradition of Islam's founders: "To be a good Muslim, a man must first of all be a good Christian and a good Jew." So my medical colleague may not have been so very far from the truth after all when he made his declaration of faith at that medical meeting so many years ago.—MALCOLM PLEYDELL (retired county medical officer, Oxford).