Third place

The curious case of Patient K

Ron Elisha

Patient K first presented to me in early December 2015. Although he declined to volunteer his age, he looked to be a man in his late 60s, moderately though not morbidly obese, with a ruddy complexion and a rather odd manner of dress. (He seemed inordinately fond of the colour red.)

He struck me as somewhat inappropriately jocular but, given that his patient registration sheet listed him as a toy manufacturer, I was prepared to accept that he was possessed of a somewhat playful disposition.

His accent was difficult to place (German?), but he remained cagey about his country of origin.

Two things caught my attention almost immediately. First, his hands were frostbitten and, second, his breathing was laboured. Initially, I felt that the latter might be related to a combination of obesity and the tightness of his belt, which was worn almost in the manner of a truss, but the presence of a faint wheeze indicated that there might be more to it.

In fact, at one point during the consultation, he suffered a coughing fit, which was productive. The sputum on his handkerchief was a greyish colour, with minute black specks. He denied ever having worked as a miner or having lived close to a coal-fired power station.

His chief concern was that he would be unable to handle the workload of the upcoming festive season, as the previous season (2014) had "almost killed" him. He was also troubled by the fact that his beard, which was expansive, seemed to be thinning at an alarming rate.

Being the sort of man who tended to avoid doctors, there was little in the way of past history, other than a "minor heart attack" some years earlier and what he termed a "pathological fracture" of the left tibia at around the same time (though he denied ever having been told he had cancer), with a subsequent clot in that leg.

He lived an isolated, rustic existence, was estranged from his family, was a non-smoker and took no medication.

Examination revealed quite marked rosacea, rhinophyma and, unsurprisingly, the smell of brandy on his breath.

His conjunctivae were rather pale, his blood pressure was elevated at 165/100 mmHg (supine) with no postural change, and his legs were somewhat bowed, with absent peripheral pulses, ischaemic skin changes and advanced, generalised onychomycosis of the toes.

Examination of the upper body revealed a barrel chest, with widespread, bilateral rhonchi and poor air entry. His abdomen revealed two finger-breadths of slightly tender liver, a 6 cm umbilical hernia (easily reducible) and a degree of testicular atrophy. (When questioned about erectile dysfunction, his jocularity gave way to irascibility.)

His body mass index was 33.7. His urine was clear (dipstick). There was no icterus. His fingernails were quite black around the margins.

During the examination, it emerged that his property was host to a herd of reindeer, upon which he relied both for transport and for sustenance.

Investigation revealed the following: mild, normocytic, normochromic anaemia (haemoglobin, 10.4 g/dL); mild, thrombocytosis (517 000 platelets/μL); somewhat elevated AST, ALT and GGT levels; normal bilirubin; low serum testosterone; elevated cholesterol (total cholesterol, 6.9 mmol/L); elevated fasting sugar (7.4 mmol/L); appearances consistent with both emphysema and silicosis on chest imaging; and a Pagetoid appearance of both tibiae. Bilateral lower limb arterial dopplers revealed almost no peripheral run-off below the knees and fungal scrapings of the toenails grew trichophyton.

I was in the process of putting all of this together when he suddenly volunteered that the nose of one of his reindeers glowed in the dark.

A diagnosis of Korsakoff syndrome crossed my mind, but he then showed me a video on his mobile phone that backed up his claim.

"We call him Rudolph the Red-Nosed Reindeer," he beamed, proudly.

I pointed out that the reindeer's nose was in fact a luminescent green.

An Ishihara test quickly established that Patient K was red-green colour blind and that, in fact, he believed himself to be wearing green as something of an ecological statement. As there was no known family history of colour blindness, I concluded that it may have been secondary to either his (probable) diabetes mellitus[1] or, alternatively, his alcoholic liver disease.[2]

My investigations revealed that the type of phosphorescence seen in the reindeer's nose was due to either copper-activated zinc

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sulphide[3] or strontium aluminate,[4] which the creature must have ingested.

Closer questioning enabled me to localise the patient's property to the far north of Arctic Alaska where, I discovered, the soil substrate is very rich in strontium, with subsequent accumulation in plants and animals.[5]

Given that the patient fed almost exclusively on venison, I called the lab to run a serum strontium test on the specimen that had already been drawn. The result came back at a whopping 18 mg/L (three times the peak concentrations seen after therapy with strontium ranelate).[6]

Strontium therapy is associated with an increased risk of myocardial infarction, congestive heart failure, venous thrombosis (including pulmonary embolism), hypercholesterolaemia and possible osteomalacia.[7]

The thinning beard, I believe, was the result of raised circulating oestrogens due to his liver disease (as, of course, was the testicular atrophy).

The anaemia, thrombocytosis, rosacea and rhinophyma were related to his alcoholism (to which he never admitted, by the way).

His onychomycosis was due, in great part, to the large rubber boots which he insisted on wearing virtually 24/7 (though the diabetes may have contributed).

I deduced that the increased alcohol intake might have been related to a combination of seasonal affective disorder (much more common in Arctic climes) and the acute stress of having to cope with the demands of the festive season each year.

The blackened nails, emphysema and silicosis, however, remained a mystery until finally, under close questioning bordering on interrogation, he broke down and admitted that he made a habit, during the festive season, of clambering onto strangers' roofs in the middle of the night and climbing down their chimneys!

Meanwhile, the results of further tests on Rudolph had come back, indicating the possibility of chronic wasting disease, a form of spongiform encephalopathy similar to Creutzfeldt–Jakob disease in cattle.[8] Human prion protein is susceptible to conversion by chronic wasting disease prions,[9] thus it was possible that Patient K was in fact Patient Zero, as a disease such as this, in its early stages, might explain his bizarre seasonal behavioural pattern.

Referrals were made to a dietitian, a diabetes educator, an exercise physiologist, a cardiologist, a vascular surgeon, a drug rehabilitation specialist, an endocrinologist, a neurologist, a psychiatrist and a respiratory physician. It was felt that, given his hepatic impairment, it was too risky to attempt treatment of his onychomycosis at that time.

Rudolph, alas, had to be put down, and the following year's deliveries were made by UberToys.

When I last saw Patient K, his blood pressure was 125/80 mmHg, his body mass index was a svelte 24.3, he was clean-shaven and sober, his cholesterol was 3.8 mmol/L, his HbA_{1c} 5.9%, his liver function test results normal, his serum strontium level normal (he is now on a Mediterranean diet) and he had undergone coronary stenting and bilateral femoropopliteal bypasses. He has been forbidden chimney access, is on a variety of inhalers, receives regular chest physiotherapy and has annual chest imaging to check for neoplasia.

He was wearing open-toed sandals (his toenails had cleared up spontaneously), a Hawaiian shirt and sky-blue board shorts, and had moved his entire operation from Alaska to Amalfi.

He said that he missed the flavour of venison, but had developed quite a taste for cuppetiello di pesce.

Buon Natale!

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