Case report

A young man who liked lizards and lost his job

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In June, 1994, a white man, aged 19 years, who worked for a large food producer, developed a pilonidal sinus. The sinus being initially diagnosed as a boil, a course of flucloxacillin was prescribed by his general practitioner. After 4 days' treatment, diarrhoea developed and a stool sample was automatically requested by his employers. *Salmonella reading* was isolated and he was sacked from his job, as was his employer's practice. Still positive for *S reading* a month later, he was given a course of ciprofloxacin. Two stool samples 3 weeks later were negative. A final confirmatory stool 1 month later grew a different salmonella species, *S havana*. Despite a second course of ciprofloxacin in October, *S havana* was still isolated from stool samples in late November, 1994.

On inquiry, the young man reported sharing his bedroom with a bosk monitor lizard (*Varanus e exanthematicus*). Excreta were obtained from this lizard and another salmonella species, *S agoueve*, was isolated. On further enquiry, the young man reported sharing his house with one bosk monitor lizard, one chuckwalla lizard (*Sauromalus obesus*), two green anol lizards (*Anolis* sp), three bearded dragon lizards (*Pogona vitticeps*), one Argentine horned frog (*Ceratophrys ornata*), three dogs, two cats, one chinchilla, four mice, and several spiders, crickets, and beetles, as well as his mother, father, and younger brother. Stool samples or soil from habitats were obtained from the inhabitants. Stool samples from the mother, father, younger brother, and the dogs, and soil from the Argentine horned frog's habitat, were negative. Excreta and soil samples from the lizards grew *S agoueve* and *S widemarsh* from the bosk monitor, *S muenchen* and *S hagenbeck subspecies 2* from the chuckwalla, and *S reading* and *S havana* from the bearded dragons. The bearded dragons (figure) appear therefore to have been the source of the two salmonella species isolated from the patient. Opportunity for infection was considerable, the lizards being frequently handled and allowed to sit on the shoulders or laps of family members. A veterinary surgeon suggested treatment of the lizards with enrofloxacin (oral or intramuscular 5 mg/kg every other day for 5 treatments or 5 days) and thorough disinfection of the cages. However, the family elected to sell most of the lizards, retaining two bearded dragons for breeding and following careful hygiene when handling them. The patient had no further gastrointestinal symptoms and spontaneously lost salmonella carriage (three negative stools, February, 1995).

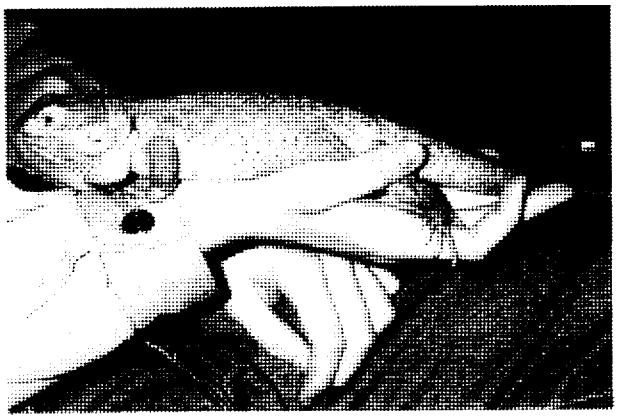

Figure: **Female bearded dragon**

Up to 80% of lizards carry salmonella species.[1,2] Symptomatic human infection has been reported from a monitor lizard[3] and from snakes,[4] but symptomless infection in reptile owners is probably more common, although no data are available for the UK. The dragons had reportedly been purchased from a reptile outlet, now no longer selling reptiles. The sellers reportedly claimed that the dragons were originally from Tenerife, had been screened for salmonella on admission to the UK, and were clear. Import licences are not required for lizards, and the claim of screening must be considered dubious. Eradication of carriage from the lizards would have been difficult, and probably unnecessary. Recent guidance on "Food Handlers: Fitness to Work" from the Department of Health,[5] which denies the need for negative stool samples on recovery from an acute infection with a non-enteric-fever salmonella species, suggests the action of the patient's employer was inappropriate. The young man probably never had symptomatic acute infection. His future employment plans do not include food handling.

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References

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