There is an increasing interest in keeping exotic pets, such as snakes, iguanas, turtles and tropical fish, but most pet owners are unaware of the pathogens these pets carry. This case study describes a case of salmonellosis in a young infant whose family kept a pet turtle.

Case study

John Carter (name changed), a six-week old formula-fed baby presented to accident and emergency with a 24-hour history of fever and profuse diarrhoea. He was born at term by normal delivery with no risk factors for neonatal sepsis. On presentation he appeared mottled and had dry mucous membranes. Observations showed his temperature was 38.5°C, his pulse rate 188bpm, his respiratory rate 48 breaths per minute, and oxygen saturations 97% in air. Physical examination revealed an unwell and dehydrated infant with a sunken anterior fontanelle. A diagnosis of sepsis was documented and John was admitted to the children’s ward for further assessment and treatment.

John was prescribed intravenous fluids. Blood, faecal and cerebrospinal fluid (CSF) samples were taken and sent to the laboratory. He was subsequently commenced on IV ceftriaxone. Blood and CSF cultures did not reveal any signs of infection. Within 36 hours of admission, John improved and IV fluid therapy was discontinued. In view of his age and the presence of shock at presentation, he was prescribed a five-day course of IV antibiotics. The initial faecal culture results became available after 72 hours and revealed growth of Salmonella species. It was then that further discussions revealed the family owned a pet turtle that was handled by family members. John was discharged with a diagnosis of salmonellosis. His parents were given advice about handling the pet and the need to wash hands and sanitise the kitchen worktops where the infant’s feeds were prepared. Salmonella wassenaar was later identified in the faecal sample and this was considered to be the bacteria causing John’s illness. This has been associated with reptilian species such as turtles, iguanas and lizards (Woodward et al, 1997).

Discussion

Reptiles have been known to carry and shed (non-typhoidal) Salmonella. These are pathogenic to humans, and reptile-associated salmonellosis is increasingly being recognised as an emerging zoonosis (infectious disease transmitted between animals and humans) (Editorial team et al, 2008). It is estimated that in the US around 1.4 million cases of Salmonella infection occur annually in humans; about 74,000 of these result from exposure to reptiles and amphibians (Editorial team et al, 2008). Salmonella infections acquired from reptiles are particularly serious for young children as they may develop invasive illness such as sepsis and meningitis (Ward, 2000; Woodward et al, 1997). Import restrictions in combination with public information campaigns in Sweden have proved to be effective public health measures against reptile-associated salmonellosis (Editorial team et al, 2008). Similar strategies must be considered in other countries.

Salmonellosis associated with exotic pets is a continuing public health problem and it is recommended that children under five years, patients who are immunocompromised, pregnant women and older people should avoid contact with reptiles (Ward, 2000; Woodward et al, 1997). Import restrictions in combination with public information campaigns in Sweden have proved to be effective public health measures against reptile-associated salmonellosis (Editorial team et al, 2008). Similar strategies must be considered in other countries. NT

Siba Prosad Paul is specialty trainee in neonates, Southmead Hospital, Bristol; Rachel Wilkinson is advanced paediatric nurse practitioner, St Richard’s Hospital, Chichester; and Dorothy Hawes is specialty trainee in neonates, Royal Sussex County Hospital, Brighton

References

