Pets form an integral part of many patients’ lives. Studies suggest 45% of households in Europe own at least one pet1. In many households pets are considered part of the family and therefore have close contact with patients. Unfortunately this increases the risk of infectious organisms being passed between pet and patient. Zoonotic peritoneal infections have been increasingly reported. We reviewed three unusual peritoneal infections presenting to our renal department in the last two years, all of which been attributed to pets or livestock.

**Case 1** 20 year old male who had end stage renal disease secondary to drug-related interstitial nephritis had been on Continuous Ambulatory Peritoneal Dialysis (CAPD) for six months. He had a disconnection and subsequent set change and a fluid sample was sent. This grew *Rhodotorula muciliginosa*, a yeast-like fungus, which had previously been thought to be non-pathogenic but now has been reported in cases of PD peritonitis2. PD fluid was sent on three occasions and all samples grew *Rhodotorula spp*. On further questioning he described keeping a Chilean Tarantula and bearded dragon where he performed his dialysis. Samples were taken from the pets and the sand from the tarantula tank grew *Rhodotorula spp*. Due to the nature of the fungus his PD catheter was removed.

**Case 2** 61 year old lady who was dialysis dependant secondary to diabetic nephropathy had been on Automated Peritoneal Dialysis (APD) for seven years. She presented with her first episode of PD peritonitis and grew *Neisseria mucosa* in her peritoneal dialysate. This organism is commonly found in the saliva of dogs and was thought to originate from her terrier dogs that slept on her bed. She completed a twenty one day course of intraperitoneal (IP) ceftazidime and the infection cleared. She was given further education and training on dialysis and advice on reducing the risk the dogs posed.

**Case 3** 67 year old gentleman with diabetic nephropathy and renovascular disease had commenced APD one month before developing peritonitis. His PD fluid grew a Group B Streptococcus (*Streptococcus agalactaie*). This organism is more common in pregnant women and newborn babies, but it is well-recognised in adults with risk factors. It also causes bovine mastitis in dairy herds. The patient was a retired dairy farmer and he reported performing his dialysis in the trousers he wore for milking, a potential source. He was effectively treated with IP vancomycin.

Previous case reports of zoonotic peritoneal infections have highlighted the importance of patient education around pet-related peritonitis. The 2011 International Society of Peritoneal Dialysis (ISPD) guidelines advise enquiring about pets. A wider awareness of more unusual routes of transmission of micro-organisms is needed as highlighted by the case of the dairy farmer. The first case involving the spider highlights the growing market for exotic pets and the associated risk of infection.

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