fluid protein and glucose concentrations were 0.7 g/l and 0.3 mmol/l (5.4 mg/100 ml) respectively (serum glucose concentration was 5.2 mmol/l (194 mg/100 ml)), and Gram staining showed numerous Gram negative cocccobacilli. Culture yielded a profuse growth of H influenzae type b, and this was sensitive to sulphamethaxazole, trimethoprim, and lactamoxef and resistant to ampicillin and chloramphenicol by the comparative method of disc diffusion. Resistance to ampicillin was confirmed by demonstrating production of β lactamase (Intralactam Strip, Mast Laboratories). Resistance to chloramphenicol was reported the following day after it had been rechecked. A further sample of cerebrospinal fluid obtained on day 3 showed no change from the initial sample, but a sample obtained on day 4 (after treatment had been changed) contained only 0-435 x 10^9 white blood cells/l, and culture yielded no growth.

Minimum inhibitory concentrations of the drugs were ampicillin 128 mg/l, chloramphenicol 12 mg/l, and lactamoxef 0-06 mg/l. An inoculum of 10^6 colony forming units was used, and the test was performed following Levitham's methods. Chloramphenicol acetyltransferase production was shown by the method of Slack et al. Throat swabs were taken from family contacts but failed to yield a growth of H influenzae.

Comment
Although resistance of capsule strains of H influenzae to ampicillin is now fairly common, resistance to chloramphenicol is rare. Only one case of haemophilus meningitis due to a chloramphenicol resistant strain has been reported in this country, and this strain was sensitive to ampicillin. As it is common practice to treat cases of haemophilus meningitis, at least initially, with a combination of ampicillin and chloramphenicol, the isolation of a strain resistant to both of these agents has grave implications for future treatment. Prompt recognition of organisms of this type is important, and we believe that the methods of Slack et al for the rapid demonstration of chloramphenicol acetyltransferase production should now be routinely applied to strains of H influenzae isolated from patients with meningitis.

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A fishy tale: trout borne Aeromonas hydrophila septicemia
We report a case of septicemia in a man receiving haemodialysis, from whom Aeromonas hydrophila was isolated from blood and a skeletal muscle abscess; the organism was also isolated from trout that had been prepared for him by his wife before helping him insert dialysis needles.

Case report
A 62 year old rctor had been receiving haemodialysis for seven years for chronic renal failure. Three days after his last home haemodialysis he was admitted with severe loin pain, fever, rigors, diarrhoea, and vomiting. His history included polyarthropathy with subsequent analgesic nephropathy and multiple urothelial malignancies that had required extensive surgery. Since starting haemodialysis he had had four episodes of fistula associated Staphylococcus aureus (phage type 29/79) septicemia.

On examination he was confused with a uraemic flap, temperature was 39-5°C, and tender masses were palpable in the left loin, left quadriceps muscle, and above the fistula in his left forearm. White cell count was 20 x 10^9/l. A clinical diagnosis of septicemia with abscess formation was made and empirical treatment began with intravenous ampicillin and flucloxacillin. The three soft tissue masses continued to enlarge and his condition worsened. After 5 days of intravenous therapy a further sample of pus obtained after an incision of the left thigh revealed a rapidly growing rod that was isolated from two blood cultures. It was resistant to ampicillin, carbenicillin, and azlocillin, sensitive to the aminoglycosides and trimethoprim, and was at first thought to be a pseudomonad; it later was identified as A hydrophila. Antibiotics were changed to intravenous gentamycin with rapid clinical improvement, and later to oral trimethoprim. One week later the masses in the leg and loin had resolved, but the mass in his left forearm had become fluctuant and required surgical drainage. A hydrophila with the same sensitivity pattern as the isolates from the blood was grown in pure culture from the 20 ml of pus obtained. Four days later he developed a vasculitic, purpuric rash that settled spontaneously over the next two weeks and his subsequent recovery was uneventful.

The patient recalled that his wife had prepared trout, obtained fresh from a fish farm, before helping him insert dialysis needles shortly before he became unwell. A second trout was obtained from the family freezer, one gram of its flesh homogenised in broth, and duplicate serial 10-fold dilutions of this subcultured to blood and MacConkey agar. The total aerobic bacterial count was 3 x 10^9 colony forming units/g, of which 1-5 X 10^8 A hydrophila. Strains of this organism identified as subspecies hydrophila but that from the trout as subspecies anasaegens.

Comment
Septicaemia is the second most common cause of death in patients receiving haemodialysis and is usually due to Staph aureus associated with fistula or stent infections. A hydrophila is widely distributed in fresh and stagnant waters and is a well recognised pathogen of cold blooded animals. It has been reported as a rare cause of four syndromes in man: cellulitis or wound infection associated with exposure to water or soil, acute diarrhoea of short duration, septicemia in immunocompromised patients, and various local conditions including skin and wound and uninfected cutaneous meningitis, otitis media, peritonitis, and endocarditis. In several reports A hydrophila septicaemia has been followed by metastatic abscess formation, particularly in skeletal muscle, and by the development of a vasculitic rash similar to the erythema gangrenosum of Pseudomonas aeruginosa septicemia. The oxidase positive A hydrophila is frequently mistaken for P aeruginosa on initial isolation, but it is usually resistant to the anti-pseudomonal penicillins such as carbenicillin and azlocillin by virtue of a β-lactamase. Two other reports of A hydrophila sepsis in home dialysis patients suggested contamination of the dialysis equipment or contact of recently used vascular access sites with fresh water as sources of infection, but results of environmental cultures in these cases were negative. In our patient organisms were almost certainly transferred from the fish to the patient’s fistula when his wife was inserting the dialysis needles. It seems unlikely that A hydrophila survived graveling, although the history of diarrhoea makes the enteric route of infection a possible alternative.

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