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Kluyvera ascorbata sepsis in a patient on hemodialysis

Sepsis por *Kluyvera ascorbata* en un paciente en hemodiálisis

Dear Editor,

In patients with chronic kidney disease on renal replacement therapy, after cardiovascular disease, infections are the second leading cause of hospitalisation and death.[1] Vascular access is the main source of bacteraemia, and in this group of patients sepsis the risk of death is increased 100 times.[2] The most common micro-organism involved in up to 80% of haemodialysis catheter infections is Staphylococcus aureus, but other germs, including non-fermenting Gram-negative bacilli, have also been reported.[3] There are several pathogens of the Enterobacteriaceae family, including Kluyvera strains,[4] which rarely affect humans, but when they do, they can cause severe infection and death. We believe it is of interest to present the case of a patient on haemodialysis with *Kluyvera ascorbata* (*K. ascorbata*) infection which, to our knowledge, has not been previously reported.

Case report

This was a 66-year-old woman, partially dependent for basic activities of daily living, smoker of 20 cigarettes a day, with a history of obesity, chronic obstructive pulmonary disease, hypertension, treated and cured cervical adenocarcinoma, urinary sepsis and long-standing type 2 diabetes mellitus (DM2) with micro- and macrovascular damage which had led to chronic diabetic kidney disease and the initiation of haemodialysis one year before. A right brachiocephalic arteriovenous fistula had been created, but did not mature. A right jugular tunnelled catheter was then inserted, but had been replaced five months ago due to dysfunction. She was referred from a dialysis centre for sudden onset of hypotension and dyspnoea with desaturation after sealing of the branches of the dysfunctional catheter with urokinase. As anaphylactic reaction was suspected, the patient was given adrenaline 5 mg by nebulisation and 0.5 mg intravenously, hydrocortisone 200 mg intravenously, dexchlorpheniramine 5 mg/mL intravenously and ventilatory support. Blood tests showed hyperkalaemia of 6.8 mEq/l as the only notable finding and a chest CT scan ruled out lung disease.

When the patient arrived at our centre, the referral hospital for the area, she was hypotensive and tachycardic and with a low level of consciousness. A greenish exudate was observed at the catheter entry orifice, so it was decided to remove it, sending the tip for culture, as well as taking samples for blood and urine cultures, and inserting a temporary catheter in the left jugular vein. A repeat blood test showed leuco-

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cytes 18,060/mL (93.4% neutrophils), CRP 232.5 mg/dl (normal <5) and procalcitonin which peaked at 175 ng/mL (normal <0.50), and the serum albumin was 3 g/dl. She was initially started on empirical antibiotic therapy with meropenem and vancomycin. At 72 h, we were informed of the growth of *K. ascorbata* (>15 colonies/catheter) sensitive to carbapenems and aminoglycosides in blood cultures and catheter tip, and *Enterobacter cloacae* sensitive to quinolones in urine. Treatment was continued with gentamicin and ciprofloxacin with very good progress.

Discussion

This is the first reported case of a haemodialysis patient with *K. ascorbata* infection. Our patient had several risk factors for developing catheter-related bacteraemia, including age, DM, hypertension, hypoalbuminaemia and atherosclerosis, and the catheter had been in place for five months; we know that the risk of infection in the first six months after insertion is 46%.[5] Among the clinical characteristics of catheter-related bacteraemia, we should highlight the dysfunction of the catheter, which was initially observed[6] and a thrombosis was suspected, for which she was given urokinase. The germ isolated, *K. ascorbata*, is a Gram-negative, glucose-fermenting, oxidase-negative, catalase-positive bacillus found in some foods of animal origin, water, plants and hospital toilets and is it is common in the respiratory and digestive tract. Described in 1936 by Kluyver and Niel, it was initially considered a benign germ, but its pathogenic capacity was identified years later.[4–7] The few reported cases (45 to date) have been in immunocompromised patients, pregnant women and children,[8] making it an opportunistic germ. Our patient had an immune dysfunction mainly as a result of chronic kidney disease and DM, which put her at risk for infections; it is important to remember that patients with DM have asymptomatic bacteriuria frequently, this being the case with our patient. Case series document that the germ has been isolated in urine, peritoneal fluid, the mouth and blood; in our case, it was isolated from the haemodialysis catheter which was the gateway to the bloodstream and led to sepsis. In terms of treatment, it is known that cephalosporins, fluoroquinolones, aminoglycosides, tetracycline, aztreonam and carbapenems are the most commonly used drugs. We initially used meropenem and then gentamicin; the microorganism was resistant to third generation cephalosporins as documented in one case.[9] However, we would like to emphasise that the first step to be taken in the event of a severe haemodialysis catheter infection is as recommended in the guidelines the removal of the catheter.[10] Early and comprehensive management of *K. ascorbata* catheter-related bacteraemia was key to the patient's survival.

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Knowing the meaning of the words we use: Gitelman's syndrome or Gitelman's disease?

Conociendo el significado de las palabras que usamos. ¿Síndrome de Gitelman o enfermedad de Gitelman?

Dear Editor,

Physicians have a great need for words to express the clinical signs and symptoms we observe in the many different forms of illness in our patients, which also need to be named. We need so many words that many of those we use are neologisms or eponyms dedicated to one or more pioneering physicians, whether or not they discovered a new disorder.

In the dictionary of the Real Academia Española [Royal Spanish Academy], the word *síndrome* [syndrome] is used to designate ä set of symptoms characteristic of a disease or a certain state:. This is the case for example with oculo-cerebro-renal syndrome or haemolytic uraemic syndrome. Sometimes, with a single term, the word syndrome is used to designate a basic clinical concept that may be shared by several diseases originating from different causes, as is the case with nephrotic syndrome, for example. Finally, in other situations the term is accompanied by an eponym. This third option is more difficult to conceptualise, as the main symptoms that are characteristic of the disorder are replaced by the surname of an author who, curiously enough, was often not even the first to describe the association ("Stigler's Law"). Strictly speaking, as a set of characteristic symptoms defines a syndrome, an eponym should not be used to designate it.

Often in daily practice a defining term is used repeatedly without successive authors stopping to check whether or not it is a suitable word. Such is the case, for example, with Bartter and Gitelman syndromes. These are two tubulopathies which could certainly have been united, at the time, as one syndrome characterised by ẗypokalaemic alkalosis;, but they were not.

In 1962 Bartter et al. described a new syndrome characterised by hyperplasia of the juxtaglomerular complex with hyperaldosteronism and hypokalaemic alkalosis.[1] When other authors published new cases of the disease using the surname of the first author of the first paper published, they could have had no idea that they were in fact dealing with five diseases, which have in common a loss of chloride and sodium whose origin is in the thick portion of the ascending limb of the loop of Henle. The use of the term syndrome in this case is debatable, since, as we have said, it is used to bring together ä set of symptoms characteristic of a particular disease or condition;, not of five diseases of distinct aetiology. In addition, in other multiple disorders, as in Dent's disease, for example, the term syndrome is not applied. However, in the case of the disorder described by Gitelman et al. in 1966[2] the use of the term *syndrome* is certainly inappropriate, as it is a single disease with a clearly established aetiology.

In PubMed, the title or abstract of only seven out of 1804 and 11 out of 942 results read *Bartter disease* and *Gitelman disease* respectively, instead of the corresponding eponym accompanied by the word syndrome. However, in some papers published in this journal, the term Bartter disease has been used without being rectified by the Editorial Board at the time.[3]

In short, medicine in general and our speciality in particular have shown dizzying growth in recent years. Some seemingly inappropriate terms have persisted over time. Perhaps the time has come to reconsider how they are named in some of these cases.

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