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## First case of renal abscess by *Parvimonas micra*<sup>☆</sup>



### Primer caso de absceso renal por *Parvimonas micra*

Perirenal abscesses usually present as an infrequent complication of urinary tract infections,<sup>1</sup> and may be secondary to bacteraemia. In the past, the erroneous and late diagnosis produced high mortality, reaching up to 20–50%. Currently, with the use of modern imaging techniques, an earlier diagnosis is achieved and, together with the optimal drainage of the abscess and antibiotic treatment, mortality is very low.<sup>2</sup>

We present the case of a 65-year-old man who went to the emergency department for fever of up to 39°C which had been ongoing for four weeks, chills, weight loss of 5 kg and abdominal pain in the lower left flank, with a history of a tooth extraction which was performed three weeks prior to the onset of symptoms. The patient did not have urinary symptoms. Among the lab results, the following stood out: CRP (100.5 mg/l), procalcitonin (6.88 ng/ml) and neutrophilia. Renal ultrasound showed the presence of bilateral simple renal cysts with no other pathological findings. Urine and blood cultures were taken, empirical intravenous antibiotic therapy was started with meropenem and vancomycin and the patient was admitted. Renal CT scan showed left perirenal abscess (6 × 5 cm) with extension to spleen, posterior pararenal space and fascias, but the drainage of the renal lesion was not possible due to the lack of organised collections suitable for puncture. The echocardiogram showed no images compatible with valvular endocardial vegetation, ruling out endocarditis. The urine culture was negative. At 41.27 h the anaerobic blood culture bottle was positive, gram-positive cocci were observed in chains and a blood agar was taken in anaerobiosis, in which whitish and dwarf colonies grew at 96 h and were identified as *Parvimonas micra* by MALDI-TOF (*Vitek MS*<sup>®</sup>). The antibiogram (ATB ANA EU, *bioMérieux*) showed susceptibility to amoxicillin, amoxicillin-clavulanic acid, clindamycin, imipenem, metronidazole, penicillin, piperacillin, piperacillin/tazobactam, ticarcillin, ticarcillin/clavulanate and vancomycin, so the treatment was modified to ertapenem and clindamycin. The renal CT scan performed 10 days after admission showed a modest decrease in size (3.7 × 2.6 × 4.9 cm) and abscess density and the patient was discharged 25 days after admis-

sion. He completed the intravenous treatment for seven more weeks and then took oral clindamycin for six weeks until he was cured.

*Parvimonas micra* is an anaerobic gram-positive coccus, which is part of the normal flora of the mouth, respiratory and upper digestive tract, genitourinary system and skin. Its pathogenic potential has been discussed for years, although it is now known to cause opportunistic infections: brain and epidural abscesses, bacteraemia, endocarditis, necrotising pneumonia and septic abortion, among others.<sup>3–5</sup> After searching in PubMed with the words *Parvimonas micra*/*Peptostreptococcus micros* and renal abscess we have not found any documented case, hence the relevance of this case report. Perirenal abscess is characterised by the presence of nonspecific signs and symptoms such as: fever, lumbar pain, vomiting, abdominal pain with tenderness to palpation and flank mass with irradiation to the leg, coinciding with the symptoms presented by our patient.<sup>6</sup> The main route of infection is ascending, which is why it is associated with late complications of a urinary infection, especially urolithiasis. For this reason, the bacteria involved most frequently are *Escherichia coli*, *Klebsiella pneumoniae* and *Proteus* spp., although cases of renal abscess due to *Staphylococcus aureus* have been documented.<sup>7</sup> Occasionally, the symptoms may be suggestive of acute pyelonephritis with febrile syndrome and unilateral flank pain that does not improve with the treatment of acute pyelonephritis.<sup>8</sup> Pyuria and proteinuria may be associated, but urine analysis is normal in up to 30% of cases with negative urine cultures in up to 40%, as occurred in our case. In the patient, the abscess appeared as a consequence of a bacteraemia of oral origin, since he had undergone a tooth extraction, which secondarily gave rise to the septic metastatic implant in the retroperitoneal, renal and splenic region, possibly favoured by the presence of previous renal cysts. The risk factors associated with this condition are: diabetes mellitus, urethral obstruction, vesicoureteral reflux, immunosuppression or parenteral drug use,<sup>9</sup> none was present in our case, which makes us assess the opportunistic potential of *Parvimonas micra*. With all this, we can conclude that an early diagnosis and optimal treatment is essential to achieve a favourable evolution.

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## Imported infection by CTX-M-15 extended-spectrum beta-lactamase-producing *Shigella sonnei*<sup>☆</sup>



### Caso importado de infección por *Shigella sonnei* portadora de betalactamasa de espectro extendido CTX-M-15

Shigellosis is an acute intestinal infection of worldwide distribution caused by different species of the genus *Shigella*, with *Shigella sonnei* being the most prevalent in our area. The existence of strains of *S. sonnei* that produce extended-spectrum beta-lactamases (ESBL) has been widely reported in Asian countries such as China,<sup>1</sup> Japan,<sup>2</sup> South Korea,<sup>3</sup> Iran<sup>4</sup> or Vietnam.<sup>5</sup> However, infection due to these bacteria in Spain<sup>6</sup> is anecdotal. With the increase of tourism to exotic places, in recent years there has been an increase in the number of imported cases of rare infections in Spain or the expansion of strains with resistance to antibiotics, as is the case described below:

A 33-year-old man, born in Spain, went to the emergency department in the summer of 2017 with symptoms that began that morning, characterised by epigastric pain, nausea, vomiting and watery diarrhoea with mucus, accompanied by a fever of up to 38 °C and hyporexia. There was no associated respiratory or urinary symptoms. The patient had returned to Spain six days before from a 23-day trip through Vietnam and Cambodia, with a two-hour layover at Dubai airport. He was accompanied by his wife, who had presented diarrhoeal symptoms during the trip, without fever, lasting seven days. The patient had not received any type of vaccination prior to the trip nor had prophylaxis for malaria been carried out, so a thick blood smear and malaria antigen detection were performed, both resulting in negative tests. In his lab results, he had leukocytosis (23,800 cells/mm<sup>3</sup>) with marked neutrophilia (21,900 cells/mm<sup>3</sup>) and an increase in C-reactive protein (73 mg/dl). Samples of faeces and urine were sent to the microbiology department for conventional culture and the patient was discharged with antibiotic treatment (ciprofloxacin) and hydro-electrolytic replenishment.

In the stool culture, non-lactose fermenting bacteria were isolated in the *Salmonella-Shigella* medium which were identified as

*S. sonnei* by the triple sugar-iron agar (TSI) test, agglutination with specific antisera and biochemical tests. The antibiogram was performed by the broth microdilution method using a Microscan<sup>®</sup> panel, which showed resistance to ampicillin, cephalothin, cefuroxime, cefotaxime, ceftazidime, cefepime, gentamicin, tobramycin, amikacin, co-trimoxazole and nalidixic acid, but susceptibility to norfloxacin, ciprofloxacin and levofloxacin. It had an extended-spectrum beta-lactamase phenotype with inhibition by clavulanic acid. The type of beta-lactamase was determined by real-time PCR (Progenie Molecular<sup>®</sup>) and subsequent Sanger sequencing resulting in beta-lactamase of the CTX-M-15 type.

The case presented is the first imported case described in Spain of *S. sonnei* producing CTX-M-15. ESBL-producing *S. sonnei* infections in Spain are scarcely collected in the literature, with the exception of one native case<sup>6</sup> reported in 2011. Up to seven types of beta-lactamases of the CTX-M type have been described in the genus *Shigella*: CTX-M-2, CTX-M-3, CTX-M-14, CTX-M-15, CTX-M-55,<sup>2</sup> CTX-M-57<sup>7</sup> and CTX-M-64, with beta-lactamase CTX-M-15 being the one reported most frequently in Asian countries such as Vietnam, Korea, China, Japan, Iran, Turkey and Lebanon.<sup>8</sup> The case presented highlights the importance of tourism to exotic places in the expansion of ESBL-producing strains in rare genera in Spain.

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