

- in young and elderly adults. *Antimicrob Agents Chemother.* 1988;32: 938–41.
9. Matsumoto T, Muratani T, Nakahama C, Tomono K. Clinical effects of 2 days of treatment by fosfomycin calcium for acute uncomplicated cystitis in women. *J Infect Chemother.* 2011;17:80–6.
 10. Zhanel GG, Zhanel MA, Karlowsky JA. Oral fosfomycin for the treatment of acute and chronic bacterial prostatitis caused by multidrug-resistant *Escherichia coli*. *Can J Infect Dis Med Microbiol.* 2018;2018:1404813.

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***Coxiella burnetii*-infected abdominal endovascular aortic stent graft in a kidney transplant recipient**



Infección de stent endovascular aórtico-abdominal en un trasplantado renal por *Coxiella burnetii*

Q fever is caused by *Coxiella burnetii*, an intracellular Gram-negative bacterium that produces prolonged bacteremia and represents great risk of persistent infections for patients with valve pathology or vascular defects.¹ This infection may have serious consequences in renal transplant recipients, especially if cardiovascular abnormalities are present.² We present the case of a renal transplant recipient with weight loss and malaise.

A 65-year-old patient, with a kidney transplant from 2011 with baseline serum creatinine around 1.15 mg/dl. He was receiving tacrolimus (levels around 5–7 ng/ml) and mycophenolic acid (180 mg/d) as immunosuppressive therapy. He also had an endovascular prosthesis for an abdominal aortic aneurysm from 2006 and referred several trips to Africa in the past 20 years. He was also the owner of a scrap dealing company in rural area of Castilla-La Mancha (Spain).

Since June 2018, he endorsed gradual onset of non-specific symptoms (malaise, persistent low grade fever and weakness), and a 10 kg weight loss in one year. The patient consulted on August 2019: laboratory examinations of previous 3 months revealed increased value of liver enzymes and C reactive protein (CRP). Multiple blood cultures were negative for bacteria and fungi. A fluorine

18-fluorodeoxyglucose positron emission tomography/computed tomography (18F-FDG PET/CT) was performed, showing aorto-iliac endovascular stent graft with heterogeneous content in aneurismatic sack and striation of the peri-aortic fat tissue, suggestive of peri-graft infectious process.

IgG anti-phase I and phase II antibodies for *C. burnetii* were reactive at titers of 1:8192 and 1:16,384 respectively, with later detection of *Coxiella burnetii* DNA in blood sample by polymerase chain reaction (PCR).

Diagnosis of chronic Q fever was confirmed and the patient began treatment with doxycycline 200 mg/d and hydrochloroquine (400 mg/24 h because of gastrointestinal symptoms). No surgical intervention was performed due to high risk of aneurism rupture and compromise of vascularization of kidney allograft. After a three-month follow up period, patient was asymptomatic, had gained weight and in the last serological tests, IgG anti-phase I and phase II antibodies titers were 1:2048 and 1:8192 respectively. A follow up PET/TC performed three months after initiation of antibiotic therapy, showed an evident decrease in metabolic activity in the aneurismatic aortic sack (Fig. 1). Unfortunately, three months later the patient passed away due to an aggressive intrahepatic cholangiocarcinoma, precluding us from providing long-term follow up information about the infection.

Chronic Q fever is associated with high morbidity and mortality if left untreated and is more common in elderly subjects and those who are immunosuppressed.³ Diagnosis of Q fever relies on serology and IFA (indirect immunofluorescence assay). In acute infection, the phase II antibody response appears first and is higher

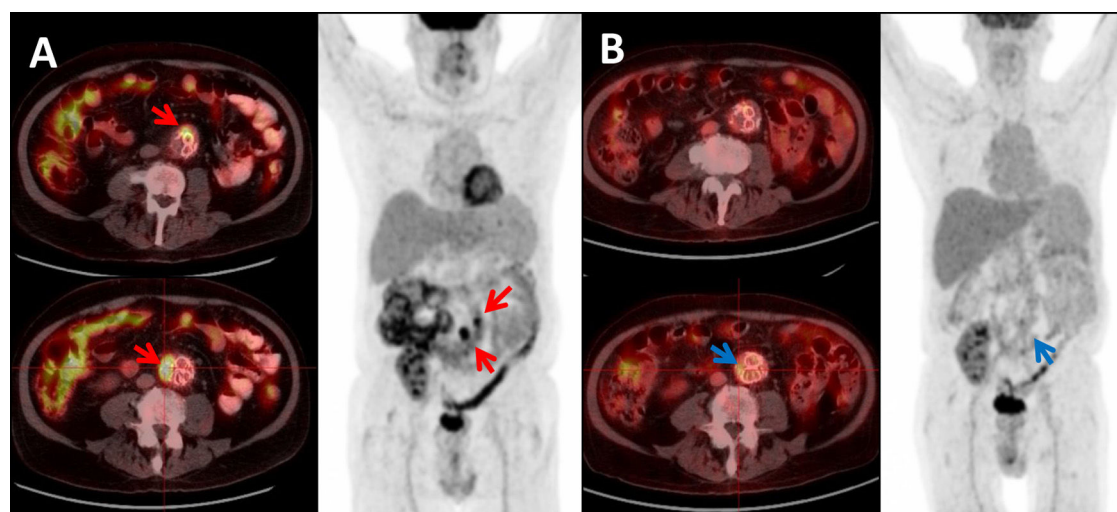


Fig. 1. 18F-FDG PET/CT showing: (A) Maximum intensity projection (MIP) and Axial-fused PET/CT images: two foci of high intensity FDG uptake in the aortic graft (SUVmax 17.79 and 9.46 respectively), consistent with infection of the graft (red arrows). (B) Same patient and same projections showing: significant decrease in FDG uptake after treatment (SUVmax 3.70 and 2.78 respectively) (blue arrows).

than the phase I antibody response. An IgG antibody titer of $\geq 1:800$ to phase I antigens suggests chronic infection.^{4,5}

Usually the infection is treated for 18–24 months and first line treatment include doxycycline and hydrochloroquine or quinolones. Monitoring should be based on clinical, serological and imaging criteria (PET/TC). Surgical intervention is recommended and always should be associated with antibiotic therapy when vascular infection is confirmed.^{6,7}

Series of cases of *C. burnetii* infections on vascular grafts emphasize in the elevated mortality of *C. burnetii* vascular infections and recommend surgical intervention shortly after diagnosis.^{8,9}

Few cases of Q fever in patients with renal transplant have been reported.¹⁰ In our case the patient bared an abdominal vascular graft stent, with radiologic signs of peri-prosthetic infection. Although surgery in these cases always should be proposed, medical therapy should be considered in a select group of patients in which surgery cannot be performed. In our case the patient presented an extremely high risk of kidney allograft loss and death during surgery, therefore, after careful evaluation by a multi-disciplinary team (nephrologists, infectious diseases specialists and vascular surgeons), surgery was discarded and prolonged antibiotic therapy was recommended.

Finally, the patient died of a liver tumor without finding a robust association between the tumor and the predisposition to this type of infrequent infection.

We present a case of chronic *Coxiella burnetii* infection in a kidney transplant patient with endovascular infection. *C. burnetii* infection should be suspected in patients with immunosuppressive therapy and long-data constitutional syndrome, especially if they carry a vascular graft; also medical therapy should be considered in patients where surgery cannot be executed.

References

- Graves SR, Massung RF. *Coxiella*. In: Jorgensen JH, Pfaller MA, Carroll KC, editors. Manual of clinical microbiology. 11th ed. Washington, DC: American Society for Microbiology; 2015. p. 1150–8.
- Larsen CP, Bell JM, Ketel BL. Infection in renal transplantation: a case of acute Q fever. Am J Kidney Dis. 2006;48:321–6.
- Marrie TJ, Raoult D. Q fever: a review and issues for the next century. Int J Antimicrob Agents. 1997;8:145–61.
- Raoult D, Tisot-Dupont H, Foucault C. Q fever 1985–1998: clinical and epidemiologic features of 1383 infections. Medicine (Baltimore). 2000;79:109–23.
- Maurin M, Raoult D. Q fever. Clin Microbiol Rev. 1999;12:518–53.
- Wegdam-Blans MCA, Kampschreur LM, Delsing CE. Chronic Q fever: review of the literature and a proposal of new diagnostic criteria. J Inf. 2012;64:247–59.
- Eldin C, Mélenotte C, Mediannikov O, et al. From Q fever to *Coxiella burnetii* infection: a paradigm change. Clin Microbiol Rev. 2017;30:115–90.
- Botelho-Nevers E, Fournier PE, Richet H, et al. *Coxiella burnetii* infection of aortic aneurysms or vascular grafts: report of 30 new cases and evaluation of outcome. Eur J Microbiol Infect Dis. 2007;26:635–40.
- Eldin C, Mailhe M, Lions C, et al. Treatment and prophylactic strategy for *Coxiella burnetii* infection of aneurysms and vascular grafts: a retrospective cohort study. Medicine (Baltimore). 2016;95:e2810.
- Godinho I, Nogueira EL, Santos CM. Chronic Q fever in a renal transplant recipient: a case report. Transplant ProcV. 2015;47:1045–7.

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Description of 12 HIV-positive patients who have had COVID-19 in our area[☆]



Descripción de 12 pacientes VIH positivos que han padecido la COVID-19 en nuestra área

Dear Editor,

As a result of the immunodeficiency associated with their condition, people living with HIV (PLHIV), are usually considered a risk group in epidemics caused by infectious agents, whether this is the annual influenza viruses or others which have emerged intermittently over the last few decades.

In the case of this new epidemic, the 2019 coronavirus disease (COVID-19) associated with severe acute respiratory syndrome caused by coronavirus type 2 (SARS-CoV-2), there is no evidence to support that PLHIV have a different clinical course, except perhaps, for those with CD4 levels CD4 <200 cells/ μ L; this point however, although logical in theory, has not been fully confirmed.¹ However, a significant percentage of PLHIV, a third in the largest cohort in our

Autonomous Region, are over the age of 50,² and so are at higher risk of having chronic diseases such as high blood pressure, cardiovascular disease and chronic lung disease, and a higher percentage smoke, meaning a greater risk of respiratory infections,^{3,4} and a greater risk of dying in the event of suffering from COVID-19.^{5,6}

One of the characteristics of COVID-19 is its high transmission and mortality rates in long-term care facilities (LTCF) and residential care homes for older people in the Western countries most affected by the pandemic.^{7,8} We would like to report on cases of PLHIV who have had COVID-19 treated in our hospital. Most were infected due to an outbreak in a LTCF for PLHIV with mainly neurological disabilities who require care which they cannot receive in their community environment. Nine of the ten residents were infected; the resident not infected was in another facility recovering from status epilepticus at the time of the outbreak.

There have not been many reported cases of COVID-19 in PLHIV. Those we have reviewed from here in Spain and Italy^{9–11} include a total of 103 cases in centres that cover several thousand patients (only 68 confirmed by real-time polymerase chain reaction (RT-PCR) and the rest clinically suspected), which would strongly suggest that PLHIV are not a special risk group for contracting COVID-19.

As of 15 May 2020, we had diagnosed 317 cases of RT-PCR-confirmed COVID-19 in our service area, 12 of them PLHIV. Seven

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