

Primary cutaneous Nocardia infection in a renal transplant patient

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Nocardiosis is a rare but recognised opportunistic infection in solid organ transplant patients. Infection is either by direct inoculation or haematological spread after inhalation of the bacteria from soil. The incidence of Nocardia infection in renal transplant cases is 0.2% and usually causes disseminated infection. Infection is more common within the first year after transplantation, if heavily immunosuppressed or with a history of Cytomegalovirus (CMV) viraemia.

A 52-year-old gentleman with a history of deceased donor renal transplant in 2011, on tacrolimus and azathioprine, presented in December 2017 with an abscess on his left hip after localised trauma, but with no skin damage. His past medical history included type 2 diabetes, (the cause of his end-stage renal failure), CMV viraemia in 2012 and paraplegia from transverse myelitis. Initially the patient was treated for an infected haematoma, but subsequently developed further abscesses. The abscesses were incised and drained and a CT chest, abdomen and pelvis revealed no underlying malignancy or disseminated infection. Wound and pus swabs, as well as tissue culture showed no growth, so the patient received multiple courses of clarithromycin. On the patient's third admission, a pus swab revealed a light growth of Nocardia farcinica. The patient received three months of Co-trimoxazole and Linezolid however due to complications, he completed treatment with ciprofloxacin.

The patient re-presented three months later with further abscesses affecting his groins, buttocks, ankle and back. Swabs, skin biopsy and tissue culture were performed which again showed no growth. An aspiration of one abscess again showed a moderate growth of Nocardia farcinica. The patient was treated with three months of intravenous Imipenem and six months of Moxifloxacin. The abscesses did resolve. Given the recurrent nature of the abscesses he underwent further imaging with repeat CT, an MRI brain and a transoesophageal echo, all of which were negative.

Nocardia farcinica typically causes disseminated infection in transplant patients, however this case demonstrates it can also cause primary cutaneous infection. Furthermore, due to difficulties culturing it, it can easily be mistaken for simple skin infections. Treatment is often challenging and requires prolonged courses of intravenous antibiotics. The experience detailed in this case report point to a requirement to include Nocardia infection in the differential diagnosis of any transplant case presenting with abscesses, and not simply those in which the risk factors outlined above are displayed.