## PCR1

**Severe back pain after below knee amputation- not always mechanical!**

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**Case Report:** A 57-year-old gentleman with poorly controlled insulin treated Type 2 diabetes since 1998 was regularly seen in our multidisciplinary foot clinic with recurrent left foot ulcers since January 2010. He also suffered with severe chronic painful diabetic neuropathy that was resistant to standard treatments, and to cutaneous and intravenous lignocaine. He received multiple courses of antibiotics, underwent surgical debridements and also had a minor amputation of his left foot. In July 2011 he was admitted to hospital with severe pyrexia and rigors, worsening left leg cellulitis and exudative discharge from a large medial arch foot ulcer despite being on oral Ciprofloxacin 500mg BD and Clindamycin 600mg TDS for 5 weeks. Two blood cultures grew Staphylococcus aureus (S. aureus) sensitive to penicillin and Enterococcus faecalis, and was treated with Intravenous Vancomycin- 1g to 2.5g/24hours depending on his serum levels. He went into septic shock and required ionotropic support in critical care unit. As his general condition continued to decline, he had a left below knee amputation in view of overwhelming sepsis. After a one-week course of intravenous Vancomycin, he received another week of oral Clarithromycin 500mg BD. He made a good recovery and was discharged on 15$^{th}$ post-operative day. Blood cultures taken 5 days post-operatively were negative. Post-amputation rehabilitation was very satisfactory with good healing of the amputation stump. He was readmitted through the emergency department in December 2011 with a 2 week history of severe mid-back pain, acute urinary retention, worsening lethargy and episodic confusion. He had pyrexia, his white cell count was 14.9 x10$^{9}$/l (normal range 4.0- 11.0) and CRP was 199 mg/l (0-9). MRI scan of the spine showed acute infective discitis. Three blood cultures yielded a S. aureus isolate with the same antibiotic sensitivity pattern as the strain seen in July 2011. He was medically managed as an inpatient with a 6 week course of intravenous Cefuroxime 1.5g TDS. He made a gradual but good recovery, although remains very hindered with chronic back and neuropathic pains. Diabetes is recognised as a common risk factor for S. aureus skin colonisation and clinical infection, and this microbe is the most common cause of spondylodiscitis. S. aureus is a virulent pathogen and thus it is unlikely that he would have had persistent asymptomatic bacteraemia (undetected by repeat blood cultures) that seeded from the foot or amputation site to the spine, without causing localising symptoms or signs in the spine for 6 months. It is likely that he was colonised on the skin with this strain and a second episode of bacteraemia occurred leading to spinal infection. The signs and symptoms of discitis may have been present in this patient prior to admission, but possibly masked by concomitant problems related to his foot ulceration and chronic neuropathic pains. This case emphasises the importance of antibiotic therapy of adequate duration and dosage for S. aureus septicaemia and deep tissue infections. It is well recognised that S. aureus can disseminate via the bloodstream to bone, joints, intervertebral discs and heart valves and clinicians should be vigilant for the occurrence of these complications in subjects with severe diabetic foot sepsis.