

# Spondylodiscitis in a hemodialysis patient

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## Introduction:

Spondylodiscitis is a potentially devastating complication of hemodialysis (HD) access related bacteremia and is associated with high mortality. Most cases of spondylodiscitis involve the lumbosacral (86.3%) and thoracic (12.7%) spine and only 8.8% cervical spine (1).

## Clinical case :

A 67 year old man on HD, dialyzed through an arteriovenous fistula (AVF), with a medical history of hypertension, several infections, stroke, seizure, presented to the Emergency Department for neck pain evolving since 2-3 days, without fever, without notion of trauma, without headache or any new neurological disturbance. He was discharged with the diagnosis of torticollis and pain killers were prescribed. At the next hemodialysis session, he presented right upper limb paresis, gait disturbances, dysarthria and worsening of the neck pain. His AVF presented a purulent secretion. A blood sample, 2 blood cultures and a sample of AVF secretion were done and cervical IRM was requested.

A cerebral scanner was performed and new ischemic or hemorrhagic lesions were excluded.

The blood sample showed a severe inflammatory syndrome, the blood culture and AVF sample were the both positive for *Staphylococcus Aureus* Methicillin-Sensitive (MSSA). Cardiac echography was performed and endocarditis was excluded. The cervical IRM was performed and showed **C3-C4 spondylodiscitis** with edema of the bone marrow and epidural collection. (fig2)

**Treatment:** Empirical intravenous (IV) antibiotics Ceftazidime and Vancomycine was initiated before blood culture results, then adapted after the results of blood culture to IV Oxacillin, 2gr 4x/day.

**Evolution:** Despite an improvement of inflammatory syndrome, the clinical state of the patient didn't improved and the blood culture continued to be positive for MSSA (fig1). Unfortunately the patient succumbed because of severe septic choc related complications.

## Discussion:

The diagnosis of spondylodiscitis is often delayed because of insidious and nonspecific symptoms, allowing dissemination of the infection. MSSA is the incremented agent in 50% of cases and AVF infections in 37% of the cases (2) MRI is the gold standard for the diagnosis (3). The mortality of spondylodiscitis in HD patients is high 33-46% (2).

## Conclusion:

In hemodialysis patients, new onset of back pain or any change in its character, with or without fever, or any small change in neurological symptoms should be viewed with high suspicion of spondylodiscitis in order to ensure rapid patient management.

## References:

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**Fig1:** Evolution of the inflammatory syndrome (represented by ultrasensitive CRP) from admission until death. Arrows indicate persistence of positive blood cultures



**Fig.2** Cervicale IRM. Arrows indicate epidurale collection

