Background. The long term outcome of patients with pyogenic vertebral osteomyelitis (PVO) has not been assessed.

Methods. We conducted a retrospective cohort study to describe the long term outcome of PVO and to assess risk factors for treatment failure in patients evaluated at our institution between 1994 and 2002. Patients were followed until July 1, 2013.

Results. Two hundred and sixty patients with PVO were included in this study. Twenty seven percent (70) of patients developed their infection following an invasive spinal procedure. Staphylococcus aureus accounted for 40% (103) of infections. Forty nine percent (128) of patients underwent spinal surgery as part of their initial therapy. The median duration of parenteral antimicrobial therapy was 42 days (IQR: 38-53). The estimated 2, 5 and 10 year cumulative probability of treatment failure free survival was 72%, 69% and 69%. Seventy five percent of patients that developed treatment failure did so within 4.7 months of diagnosis. Residual neurological defects and persistent back pain were seen in 16% and 32% of patients respectively. In a multivariate analysis, longer duration of symptoms prior to diagnosis and having an infection with S. aureus were associated with increased risk of treatment failure.

Conclusion. Increasing duration of symptoms and infection with S. aureus were associated with treatment failure in patients with PVO. Most treatment failures occurred early after initiation of treatment. PVO is associated with a high 2 year failure rate. Persistent neurological deficits and back pain are common after therapy.

Disclosures. All authors: No reported disclosures.