

# National Council for



# Osteopathic Research

## **Antibiotic treatment in patients with chronic low back pain and vertebral bone edema**

Albert HB, Sorenson JS, Christensen BS, et al. Antibiotic treatment in patients with chronic low back pain and vertebral bone edema (Modic type 1 changes): a double-blind randomized clinical controlled trial of efficacy. *European Spine Journal* 2013;22:697-707 <http://www.ncbi.nlm.nih.gov/pubmed/23404353>

This double blind randomised controlled trial investigated the efficacy of antibiotic treatment in patients who had experienced low back pain for longer than six months and had bone oedema also.

A total of 162 patients participated in the trial, and were randomised to receive antibiotic treatment for 100 days or a placebo. Improvement in the antibiotic treatment group was described as highly significant when measured after 100 days, and at a further follow up one year later.

This is an interesting study potentially offering an effective treatment for a particular sub-group of patients who might otherwise be referred for surgical procedures. It has been recognised for a long time that infections can cause back pain, and this underlines the necessity for good case history taking and diagnosis when patients first present for treatment. In this particular study, bacteria were identified in 46% of patients suffering from chronic low back pain.

While this study has provided striking new findings, the research needs to be replicated with larger numbers to confirm the findings. The widespread use of antibiotics in back pain patients other than those with bacteria is not advocated by the researchers as this could increase the likelihood of antibiotic resistance which has been recognised as a growing public health issue.