

[FULL TEXT LINKS](#)[Randomized Controlled Trial](#) [Ann Rheum Dis.](#) 2011 Jul;70(7):1191-6.

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# The effects of doxycycline on reducing symptoms in knee osteoarthritis: results from a triple-blinded randomised controlled trial

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## Abstract

**Objectives:** Evidence suggests that doxycycline might have disease-modifying properties in osteoarthritis. However, the clinically relevant question as to whether doxycycline also modifies symptoms in knee osteoarthritis is unanswered. The objective of this study was to investigate the effectiveness of doxycycline on pain and daily functioning in symptomatic knee osteoarthritis.

**Methods:** A 24-week, randomised, triple-blind, placebo controlled trial on the symptomatic effectiveness of doxycycline twice a day 100 mg in knee osteoarthritis patients according to the clinical and radiological American College of Rheumatology classification criteria. The primary endpoint was the difference in the proportion of participants in both study groups achieving a clinical response defined by the OMERACT-OARSI set of responder criteria. Secondary endpoints included pain, stiffness, daily functioning, patient global assessment, quality of life, osteoarthritis-related medication and side effects.

**Results:** 232 patients were randomly assigned. At study end, 31% of participants met the primary endpoint in both groups. Except for more adverse events in the doxycycline group, no differences were also found on the secondary endpoints.

**Conclusions:** Doxycycline is not effective in reducing symptoms in knee osteoarthritis patients over a 24-week study period, but is associated with an increased risk of adverse events. Although a possible structure-modifying effect of doxycycline was previously suggested, this is not accompanied by symptom relief in the short and medium term. Dutch Trial Register no NTR1111.

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