Medical Xpress

Antibiotic gel prevents borreliosis resulting from tick bites

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An antibiotic gel based on azithromycin, an antibiotic with antibacterial properties, helps to prevent the onset of Lyme borreliosis following a tick bite. That is the finding of a multi-centre international study, in which MedUni Vienna's Department of Clinical Pharmacology played an important part. The study has now been published in the world-leading journal *The Lancet Infectious Diseases*.

A total of 1,000 patients with fresh tick bites were treated with the antibiotic gel within 72 hours of being bitten. Says Jilma: "None of the test subjects went on to develop Lyme borreliosis." Conversely, in the control group that received a placebo, there were seven cases of borreliosis.

The advantage of the gel is that it has no side effects and, according to the results, can therefore also be used for children. Moreover, treatment is very simple: the gel has to be applied every 12 hours over a period of three days. "This kills off the borrelia," explains Jilma.

In Austria, there are around 24,000 cases of Lyme disease every year, while in Western Europe the annual figure is more than 200,000 new cases of the world's most common tick-borne infectious disease. If the infection goes untreated, it can attack a person's joints, heart and nervous system and lead to serious complications. Up to 5 percent of all tick bites result in Lyme disease: around 20 percent of ticks are infected.

More information: Michael Schwameis et al. Topical azithromycin

for the prevention of Lyme borreliosis: a randomised, placebo-controlled, phase 3 efficacy trial, *The Lancet Infectious Diseases* (2016). DOI: 10.1016/S1473-3099(16)30529-1