

## The 700-year-old Mexican mummy with a tummy ache

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A mummy. Credit: Yolanda Lopez Vidal and Gonzalo Castillo-Rojas

Remnants of the bacterium that causes stomach ulcers, *Helicobacter pylori*, (*H. pylori*) have been discovered in gastric tissue from North American mummies. A study of human remains believed to predate Columbus' discovery of the New World has shown for the first time that *H. pylori* infection occurred in native populations, according to research published in BioMed Central's open access journal, *BMC Microbiology*.

Yolanda Lòpez-Vidal and colleagues from the National Autonomous University of Mexico studied the stomach, tongue-soft palate and brains of two naturally mummified corpses - one young boy and one adult



male. The researchers looked for the presence of telltale fragments of *H. pylori* DNA in the remains after amplification by polymerase chain reaction (PCR). According to Lòpez-Vidal, "Our results show that *H. pylori* infections occurred around 1350AD in the area we now know as Mexico".

Although previous research has suggested that *H. pylori* was present in these communities, this is the first evidence that it caused gastric infections. Lòpez-Vidal explains, "It is only through the use of the stomach tissue of these incredible mummies that we were able to make this discovery. Infection is established when the micro-organism infiltrates the stomach lining and induces a local inflammatory response. This is unlike colonisation, which does not cause such a response and does not occur in the stomach".

As well as stomach ulcers, *H. pylori* causes gastritis, duodenitis, and cancer. It is a helix-shaped bacteria that is believed to be transmitted by the ingestion of food or water contaminated with faecal matter.

Source: BioMed Central

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