

## New Kingdom Pharaohs did not have ankylosing spondylitis

October 20, 2014

4:46 AM MST



Mummy of Ramesses II.

*Magnus Manske This file is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.*

The Egyptian Pharaohs of the eighteenth to the twentieth dynasty did not have **ankylosing spondylitis** but rather suffered from **diffuse idiopathic skeletal hyperostosis**. This is the conclusion reached by Dr. Sahar Saleem with the Kasr Al Ainy Faculty of Medicine in Cairo, Egypt and Dr. Zahi Hawass, Egyptologist and former head of the Egyptian Supreme Council of Antiquities. The research was reported in the Oct. 20, 2014, edition of the journal **Arthritis & Rheumatology**.

The difference in the analysis of the same mummies was dependent on the sophistication of the imaging techniques. The diagnosis of ankylosing spondylitis was based on x-ray analysis.

The new discovery is based on computed tomography (CT) scans that produce a much more detailed image.

The remains of Amenhotep III, Ramesses II, his son **Merenptah**, and Ramesses III all displayed distinctive characteristics of diffuse idiopathic skeletal hyperostosis. These were the only Pharaohs that showed any signs of degenerative bone disease of the 13 mummies examined. Diffuse idiopathic skeletal hyperostosis is seen in people over 60 years of age. The ligaments along the vertebra degenerate due to the disease producing stiffness. The mummies that were examined showed no sign of inflammation that would have been caused by ankylosing spondylitis and would have included joint erosion.

The beginnings of ankylosing spondylitis are normally seen in people that are around the age of 20. The disease is inherited. Diffuse idiopathic skeletal hyperostosis is seen more in men, can be the result of diabetes, and has not been defined as being an inherited trait. The researchers note that the confusion in identification of diseases in mummies is complicated by the effects of the mummification chemicals and the extensive wrapping.

### **SUGGESTED LINKS**

- **Genetic cause of autism proven to be 250,000 years old**
- **Ancient kangaroo ancestor was big and did not hop**
- **Corneal inlays may make reading glasses obsolete**