Poliomyelitis in Ancient Egypt?

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Although asymptomatic in 95 % of cases, in 1 % of them poliomyelitis involves the central nervous system resulting in muscular weakness and acute flaccid paralysis. This has meant a heavy health burden for millions in the past. Global efforts combining surveillance, financial support to developing countries and immunization in the last 30 years have achieved a 99 % decrease in cases of poliomyelitis. However, since no real cure exists, a lot of effort has still to be made [1].

The antiquity of the condition is accepted, and commonly even traced back to Ancient Egypt. Two lines of evidence are adduced, pictorial and paleopathological. The ca. 1500 BCE stele of a priest called Ruma with a shorter leg and helping himself with a stick (Copenhagen, Ny Carlsberg Museum AIN 0134) is considered to be one of the first representations of a polio victim [2]. The famous relief in Berlin (Egyptian Museum Inventory 15000) showing a late Amarna royal couple (ca. thirteenth century BCE) is also regarded to show the king as a polio victim with a shortened leg using a cane, yet it is even possible that the relief is a counterfeit or the clumsy work of a lesser artist [3].

Pharaoh Siptah's (1205–1187 BCE, Cairo, National Museum CG 61080) mummy shows a severely deformed *Pes equinovarus*-like left foot and a shortened left leg, a

situation also encountered with the clubfoot of Khnumu-Nekht (ca. 2500 BCE, Manchester Museum, Inv. No. 21471): these may be interpreted either as evidence of neuromuscular disease suggestive of poliomyelitis infection [4] or (especially Siptah) as congenital malformations [2] or mummification-produced modifications.

In conclusion, while the paucity of potential cases identified may confirm that even in the past only a small percentage of cases manifested a full clinical syndrome, pictorial evidence alone gives no definitive proof, still lacking from mummies. Until further incontestable paleopathological data are produced, the presence of poliomyelitis in Ancient Egypt should be considered speculative.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical statement This article does not contain any studies with human participants or animals performed by any of the authors.

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