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Historical Article

The Birmingham mummy: the first torticollis in history

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Abstract
The Birmingham Mummy is of a warrior, 25–35 years of age, from the Graeco-Roman period. He was struck from the front by an arrow, which penetrated the soft tissues of the neck to some depth and lodged in the right infratemporal fossa. It is suggested that the wound became infected and that muscle spasm induced the torticollis which was not fully corrected on mummification.

Key words: Mummies; Trauma; Neck; Torticollis

Introduction

Mummification was, and still is, considered to be one of the wonders of the Ancient Egyptian civilization. It is recorded in the Bible that both Jacob and Joseph were mummified:

'And Joseph commanded his servants the physicians to embalm his father: and the physicians embalmed Israel. And forty days were fulfilled for him; for so are fulfilled the days of those which are embalmed: (Genesis Chapter 50: verses 2 and 3).

'So Joseph died, being an hundred and ten years old: and they embalmed him, and he was put in a coffin in Egypt.' (Genesis Chapter 50: verse 26).

Mummification in Ancient Egypt passed through different stages (Gabbra, 1950).

(1) Pre-dynastic (before 3200 BC) – mummification was by dessication (Riad, 1965).
(2) Early dynastic period – there were early attempts to preserve viscera.
(3) Middle Kingdom (2100–1700 BC) – Visceral removal was more common.
(4) New Kingdom (1555–712 BC) – mummification was more elaborate (Iskander, 1980; Pirsig and Parsche, 1991). However, in some mummies so much force had been used that the skeleton was destroyed (Dawson, 1926–1927).
(5) Graeco-Roman period (332 BC-641 AD) – The art of mummification was in decline. The Birmingham Mummy is an example of this period.

It is unlikely that mummification was practised after the 4th Century AD. Both Herodotus (5th Century BC) and Diodorus Siculus (1st Century BC) wrote about mummification when they visited Ancient Egypt (Elliot-Smith and Dawson, 1924; Peck, 1980). They described three different types of mummification, which were practised at the time they visited Egypt, depending on the expenses incurred.

Shakespeare referred to mummies in the Merry Wives of Windsor (Act III).

'I should have been a Mountain of Mummy'.

Description of the Birmingham Mummy

The mummy dates from about 300 AD i.e. the Graeco-Roman period. It is a male who was probably a high ranking soldier. The outer wrappings are elaborately arranged in a diagonal pattern as was practised during this period (Figures 1 and 2). Among the geometric patterns are gilt terracotta studs. The wisdom teeth are fully erupted and there is very little evidence of dental wear so the age can be tentatively placed at 25–35 years old.

This mummy was donated to the Birmingham Museum and Art Gallery, in 1894, by Mr Arthur Phillips. Reference to the mummy first appeared in the 1895 Handbook of the Museum (Wallis and Chamberlain, 1895). Mr Phillips (1840–1919) was a widely travelled Birmingham business man manufacturing and trading in iron bedsteads (Obituary 1919).

The mummy was not in a sarcophagus and has no writings on it so it is not possible to identify the warrior.

Radiology

It was obvious on inspection that the head is rotated to the right. Radiology of the whole mummy

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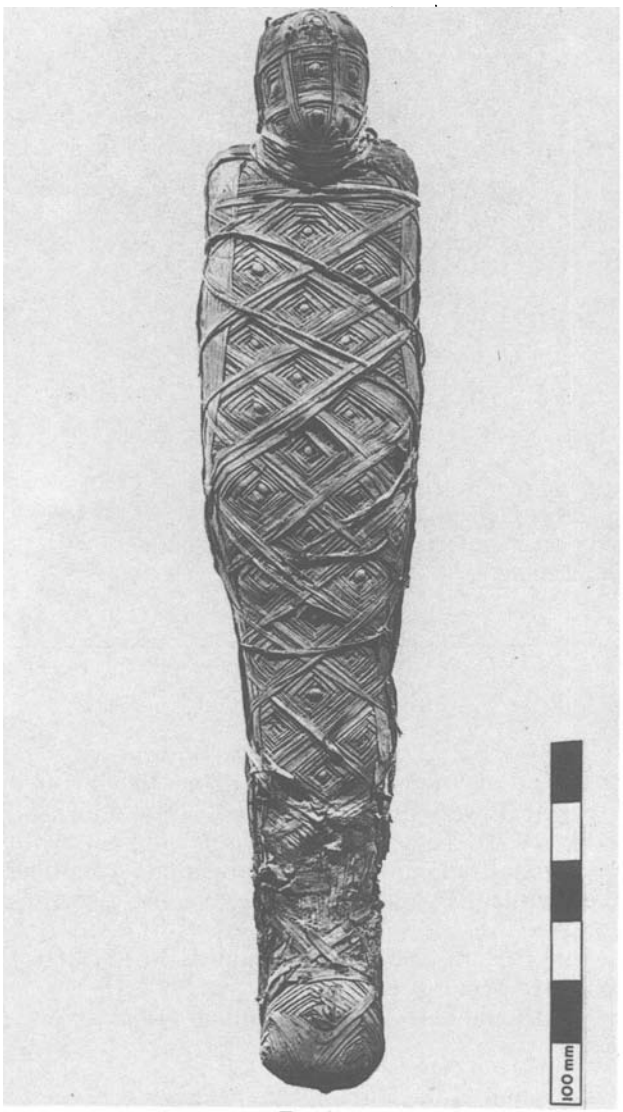


FIG. 1
Frontal view of the Birmingham Mummy.

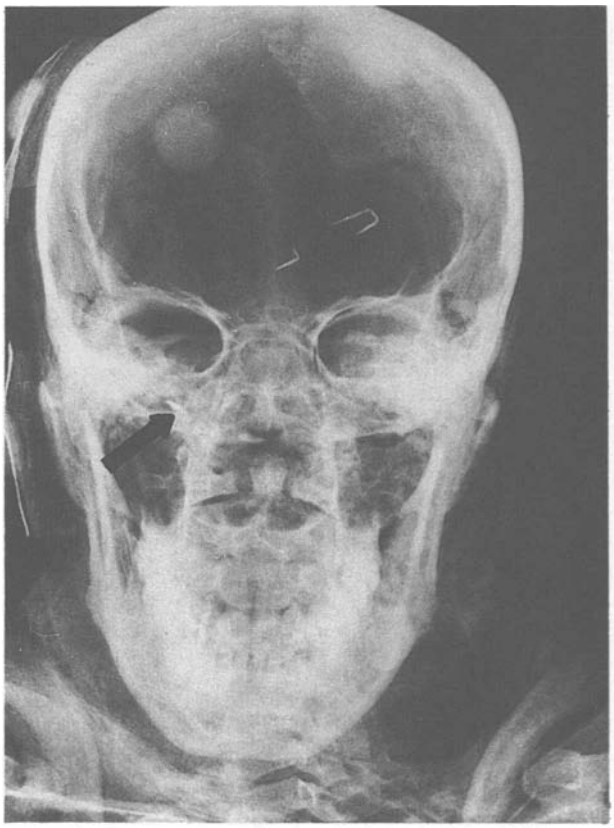
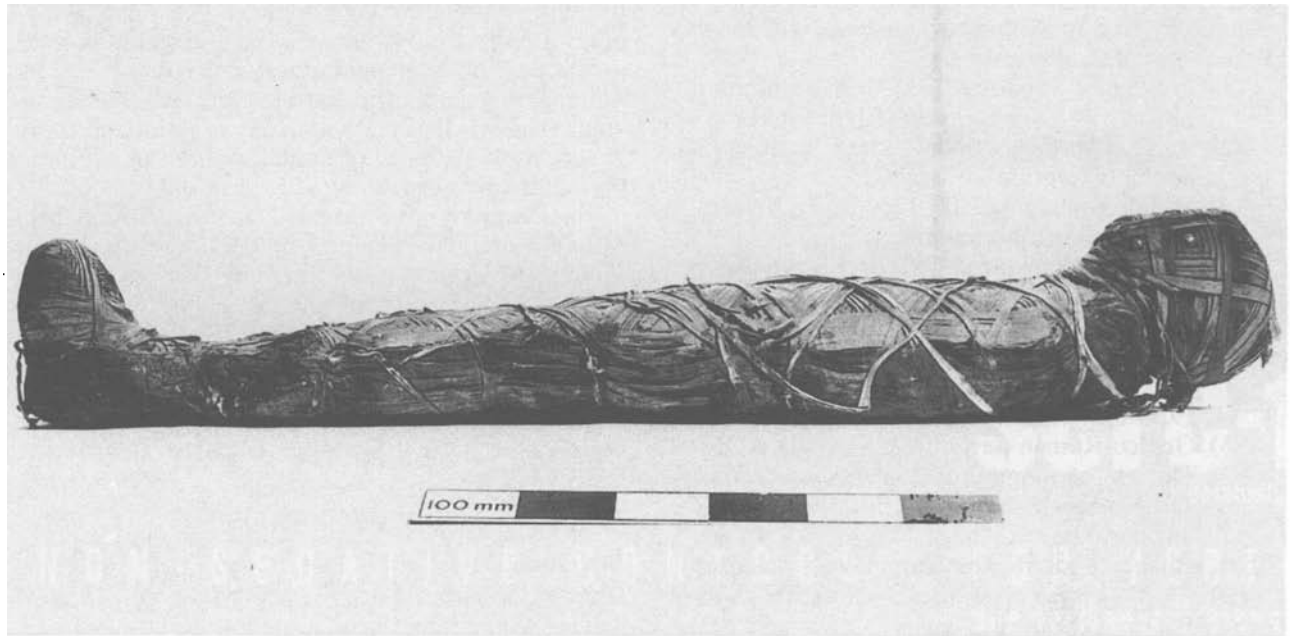


FIG. 3
Antero–posterior view of skull showing arrowhead in right infra-temporal fossa (arrowed).

was performed using the necessary number of 17 × 14 inch films. The skeletal bones showed good density with no evidence of arthritis in any of the joints. There was no evidence of internal organs, the whole space being occupied by balls of various sizes. Radiology of specimens of Nile mud showed a similar appearance.

The X-ray study confirmed the torticollis to the



Lateral view of the Birmingham Mummy.

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FIG. 4
Lateral view of skull with arrowhead in right infra-temporal fossa (arrowed).

right. There was an arrowhead lodged in the right infratemporal fossa (Figures 3–5). The arrowhead had penetrated the soft tissues and, looked at from the side, overlay the anterior portion of the body of cervical vertebra C2. When viewed from the front, the arrowhead was seen to have penetrated virtually to the lateral aspect of the body of C2. It was seen to be lying horizontally, pointing posteriorly and upwards, with a slight angulation to the right. It is fair to assume that it came from in front, fired by someone to the left of the warrior i.e. a short range right-sided opponent.

It is likely that infection followed by a resultant unilateral muscle spasm, including the sternomastoid

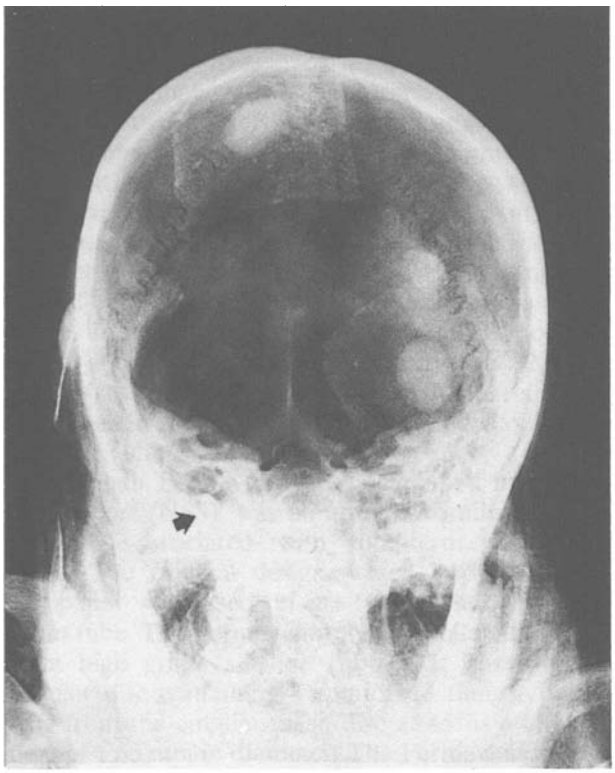

FIG. 5
Towne's view of skull showing arrowhead in right infra-temporal fossa (arrowed).

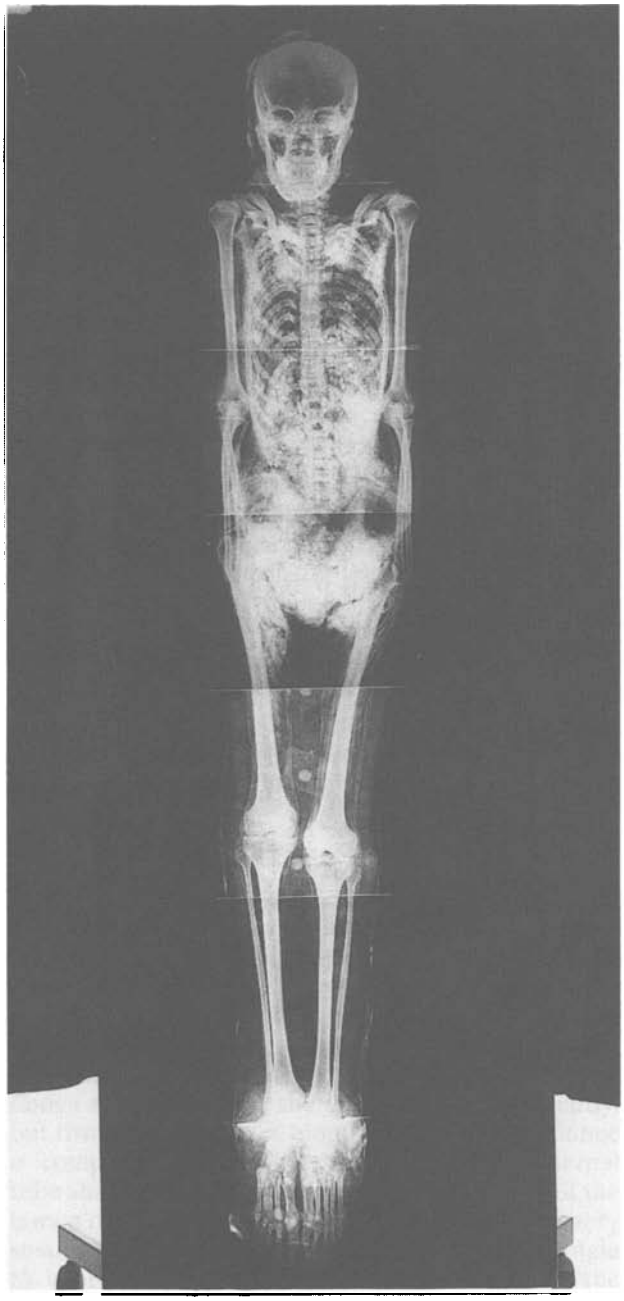

FIG. 6
X-ray of mummy showing torticollis.

presumably involved in the portal of entry, caused the torticollis (Figure 6). This is not apparent from inspection of the wrapped body.

The patient must have survived for a short period for these pathologies to develop. The cause of death was probably as a result of infection. After rigor mortis had set in, it would have been difficult for the embalmer to put the head straight again.

The Arrowhead

The arrowhead is either made of iron or bronze. A search of the Egyptian weaponry collection of the British Museum revealed an exact replica attributed to the 1st Century AD from the lower Nile region.

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Conclusions

There are many mummies and skeletons from Ancient Egypt and elsewhere with evidence of trauma. We think that the Birmingham Mummy is probably the first case of torticollis discovered.

However, in the Ebers Papyrus (according to Ebbell (1937)) there is reference to a torticollis which was translated by Lefebvre as in the chest (Pahor, 1992).

Fortunately the Birmingham Mummy is still in its wrappings and there are no plans to unwrap it. As mummification in this period was a decaying art, the mummy itself is expected to be in a bad state of preservation so it is more valuable in its present state. It is important to keep a few 'intact' mummies for future generations!

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References

Dawson, W. R. (1926–1927) Contributions to the history of mummification. *Proceedings of the Royal Society of Medicine* **20:** 832–854.

Ebbell, B. (1937) *The Papyrus Ebers*, Oxford University Press, London.

Elliot-Smith, G., Dawson, W. R. (1924) *Egyptian Mummies*, George Allen & Unwin, London, p 57.

Gabbra, S. (1950) *Mummification*, Moustafa El-Baaby, El-Halaby & Sons, Cairo (in Arabic). p 7.

Iskander, Z. (1980) The mummification in Ancient Egypt: development, history and techniques. In *An X-ray Atlas of the Royal Mummies* (Harris, J. E., Went, E. F., eds.), University of Chicago Press, Chicago, p 1.

Obituary (Arthur Phillips), Birmingham Post, 4th of December, 1919.

Pahor, A. L. (1992) Ear, nose and throat in Ancient Egypt: Part III. *Journal of Laryngology and Otology* **106:** 863–873.

Peck, W. H. (1980) Mummies of Ancient Egypt. In *Mummies, Diseases and Ancient Cultures* (Cockburn, A., Cockburn, E., eds.), Cambridge University Press, Cambridge, p 11.

Pirsig, W., Parsche, F. (1991) Instruments for transnasal brain removal during embalming by the Ancient Egyptians. *International Journal of Anthropology* **6:** 67–74.

Riad, N. (1965) *Ancient Egyptian Medicine*, Karnak, Cairo (in Arabic). p 65.

Wallis, W., Chamberlain, A. B. (1895) *Illustrated Handbook to the Permanent Collection of Industrial Art Subjects*, City of Birmingham Museum and Art Gallery, Birmingham, p 204.

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