

## Spiked drink theory sheds new light on Alexander the Great's death

Posted on Monday 20th January 2014

The mystery of the death of Alexander the Great, shrouded in intrigue, may have finally been solved, thanks to a team of academics, including a University of Birmingham toxicologist.

Two divergent accounts of the death of Alexander the Great in Babylon, modern day Iraq, in 323BC mean that scholars have never been able to agree on whether he died from natural causes or was poisoned, or indeed, what type of poison may have been responsible for his death.

But the new research sheds light on the cause of death – with wine spiked with hellebore, a common plant, being the culprit.

Professor Allister Vale, clinical toxicologist from the School of Biosciences at the University of Birmingham, teamed up with colleagues including classics scholars, from the University of Otago in New Zealand, to carry out a thorough review of the evidence available to determine the most likely poison responsible for the death of the leader.

The study is published in the latest edition of the journal *Clinical Toxicology*.

Problems in deducing how Alexander died stem from the fact there are no contemporary accounts of his life and death, and that the two most plausible accounts are at odds with each other – and may well have stemmed from propaganda at the time. The first, with its origins in the Royal Diary, kept in Alexander's court, suggested a gradual onset of fever, with a progressive inability to walk, leading to Alexander's death, without offering a cause of his demise. The second, from various versions of the Alexander Romance, implies that members of Alexander's inner circle conspired to poison him.

The accounts do agree that Alexander's terminal illness began at a banquet on the eve of a planned invasion of Arabia, where copious amounts of wine were drunk – and some accounts do suggest that pancreatitis, brought on by the significant amount of alcohol, was to blame.

But the researchers, after studying all of the available evidence, deduced that poisoning was the most likely cause of death. By studying the accounts of the symptoms and manner of Alexander's death, the authors reasoned that *Veratrum album*, or hellebore, was responsible. His symptoms included low blood pressure, a very slow heart rate and muscular weakness – all described with hellebore poisoning.

By studying the accounts of the symptoms and manner of Alexander's death, the toxicologists reasoned that *Veratrum album*, or hellebore, was responsible. His symptoms included low blood pressure, a very slow heart rate and muscular weakness – all synonymous with hellebore poisoning.

The researchers concluded that, as *Veratrum* can be fermented as a wine, it could have been given to Alexander at the banquet. They were unable to offer an answer to the question of whether Alexander was deliberately poisoned by his enemies, or drank the poisoned drink by mistake.

Prof Vale said: "We reviewed various medical hypotheses including cumulative debilitation from his previous wounds, the complications of alcohol imbibing, grief, a congenital abnormality, and an unhealthy environment in Babylon possibly exacerbated by malaria, typhoid fever, or some other parasitic or viral illness. None fully explained Alexander's death. Of all the chemical and botanical poisons available at the time, we believe the alkaloids present in the various *Veratrum* species, notably *Veratrum album*, were capable of killing Alexander with comparable symptoms to those Alexander reportedly experienced over the 12 days of his illness."

ENDS

For more information, please contact [Kara Bradley \(mailto:k.j.bradley@bham.ac.uk\)](mailto:k.j.bradley@bham.ac.uk) at the University of Birmingham press office on +44 (0)121 414 5134.

---

[Privacy](#) | [Legal](#) | [Cookies and cookie policy](#) | [Accessibility](#) | [Site map](#) | [Website feedback](#) | [Charitable information](#)

© University of Birmingham 2015

