



Illnesses of Herod the Great

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Herod the Great, Idumean by birth, was king of the Jews from 40 to 4 BC. An able statesman, builder and warrior, he ruthlessly stamped out all perceived opposition to his rule. His last decade was characterised by vicious strife within his family and progressive ill health. We review the nature of his illnesses and suggest that he had meningoencephalitis in 59 BC, and that he died primarily of uraemia and hypertensive

heart failure, but accept diabetes mellitus as a possible underlying aetiological factor. The possibility that Josephus' classical descriptions of Herod's disease could be biased by 'topos' biography (popular at the time), is discussed. The latter consideration is particularly relevant in determining the significance of the king's reputed worm infestation.

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Herod the Great, king of the Jews at the onset of the Christian era, had no Jewish blood in his veins. Infamous for many acts of cruelty, he was nevertheless a vigorous and able ruler, a prolific builder, friend and ally of Rome and founder of an extensive Herodian dynasty that significantly influenced the history of Palestine. His miserable death at the age of 69 years was seen by the Jewish religious fraternity as Jehovah's just retribution for his violation of Judaic traditions.^{1,2} The nature and cause of his illness and death is the subject of this study.

Life history³⁻⁶

With the exception of fragmentary contributions from Rabbinic traditions, Christian records in the New Testament, and evidence from contemporary coins, Herod's biography comes to us predominantly through the writings of Flavius Josephus, a Jewish priest of aristocratic descent, military commander in a revolt against Rome, but subsequent recipient of Roman citizenship. His *Jewish War* (75 - 79 AD)⁷ and *Jewish Antiquities* (93 - 94 AD),⁸ relate Herod's life history. Josephus's information was based mainly on the writings of Nicolaus of Damascus, Greek writer and scholar who was court historian, close friend and counsellor of Herod.

Herod was born (73 BC) into an aristocratic Idumean (Edomite) family. His father was Antipater, vizier to the king of Judea, and his mother, Cyprus, was the daughter of an Arabian sheik. Reared in the Judaic tradition, he was never enthusiastic about Judaism, showing greater adherence to Greek paganism and Hellenic culture. He was a born leader and great soldier and excelled in outdoor activities such as hunting.

He soon gained (and maintained) the respect of Rome, and acquired Roman citizenship at the age of 16 years. In 40 BC the

Roman senate appointed him king of the Jews in Palestine, but it took 3 years of hard fighting to depose Aristobulus, installed by the Parthians as king in Jerusalem.

37 - 14 BC marked the high tide of Herod's achievements. He showed himself a stern but efficient ruler, who brooked no opposition. Economically the country flourished, while he maintained the balance of power with Rome which gave him a free hand and promised that he would be allowed to nominate his own successor. He proved a prolific builder of magnificent structures — including a new palace, many fortifications and the Herodium complex, 8 miles south of Jerusalem (23 BC), Caesaria (22 - 12 BC) and a new temple in Jerusalem (20 - 12 BC), theatres and hippodromes for sporting events (including matches between man and animal) and the rebuilding of Samaria, as Sebaste (27 BC).

He was a passionate man and revelled in party life. In addition to his favourite eunuchs, boy lovers and concubines, he had 10 wives and at least 15 children. Initially he showed great consideration for his children, but because of his dominating and suspicious nature, and jealousy and scheming among the children of different wives, progressive family strife ensued. He aged markedly and in an attempt to look younger at 63 years, he dyed his hair black.⁹ The domestic misery gradually brought out the worst in Herod and eventually led to the execution of his favourite wife Mariamne's grandfather, Hyrcanus II (30 BC), her brother, Aristobolus (35 BC), Mariamne herself (29 BC) and her mother, Alexandria (28 BC), Herod's brother-in-law, Costobarus (25 BC), and three of his sons: Alexander (7 BC), Aristobolus (7 BC) and Antipater (4 BC) — in addition to many of his friends, lovers and others. Progressive illness towards the end of his life (described below) could also have contributed to his brutality. Caesar Augustus reputedly commented that it was better to be Herod's pig than Herod's son.⁴ However, posterity did honour him with the epithet, 'the Great', in recognition of his undoubted administrative, diplomatic, economic and architectural achievements which ensured a relatively peaceful and prosperous Palestine during his over 30-year reign.



Herod died shortly after a lunar eclipse¹⁰ which according to modern calculations must have occurred on 13/14 March 4 BC.¹⁰ There is also evidence that he died before the Passover that year,¹¹ which would have taken place before full moon on 11 April.¹¹ He died in Jericho having left Jerusalem not long before.

Herod's illnesses

According to Josephus, Herod was ill or injured at various times in his life.

In 43 BC (aged 30 years) he was prevented by illness (*nosos*) from assisting his brother Phasaël in subduing a Judean uprising. No further details are known.¹²

In 37 BC (aged 36 years) during his army's assault on Antigonus in Jericho, Herod was struck in the 'side' by a javelin. This must have been a superficial injury because he went on fighting. 'Side' is a translation of *lapara* in the *Antiquities* (meaning 'the flank between the ribs and the hips') and *pleura* in *Wars* (meaning 'side of chest').¹³

At an unknown date Herod fell from his horse (probably during a hunt) and was impaled on his own spears. We know no more about this accident, incidentally referred to in the *Antiquities*.¹⁴

In 29 BC (aged 44 years), Herod had his favourite and beautiful wife, Mariamme (of aristocratic Jewish Hashmonean descent) executed following 13 years of married life. Thereafter he entered a prolonged phase of sincere mourning. According to Josephus¹⁵ his love for her had been a growing divine madness (although she was haughty and did not necessarily reciprocate his passion) and he now exhibited signs of unseemly lament, often loudly calling out for her or ordering his servant to summon her. He put aside his administrative duties and when a serious epidemic (*loimôdes*) struck the city he went off into the wilderness on the pretext of hunting. Within days he developed a serious illness, characterised by 'inflammation' (*phlogosis*), an 'affliction' (*peisis*) of the 'back of his skull' (*inion*: the occipital region). He was taken to Samaria and developed temporary 'loss of reason' (*dianoias parallage*). In spite of multiple remedies from many physicians, he remained critically ill for a long time and then recovered very slowly. During this period he was irrational, and quick to find fault with and punish all around him.¹⁵

Probably during early 5 BC (aged 68 years), Herod developed a serious illness, and the physicians despaired of his life. He did, however, recover from this illness of which we have no details.¹⁶

Some time after the previous incident (later 5 BC, or early 4 BC) Herod again fell seriously ill. The symptoms of the disease are not recorded, but it was serious enough for him to revise his will. Having given up hope of recovery he now

became quite savage and treated all with irrational harshness and anger.¹⁷

A rumour spread that he was dying. This encouraged two rabbis, Judas and Matthias, to rouse the youth into rash actions against the king, *inter alia* the removal of his great golden eagle placed over the temple gate. This action was seen as blasphemy against Jehovah. Herod had the perpetrators arrested. He then tried them in Jericho, and in great anger deposed the high priest and killed many of the guilty by burning them at the stake. On that same night there was a lunar eclipse, which, according to modern calculations, fixes the date as 13/14 March 4 BC.¹⁰ Herod was 69 years old.

Josephus¹⁸ now gives a detailed description of Herod's further and fatal illness, which Josephus saw as God's punishment for his lawless deeds. The descriptions in *War* and *Antiquities* (essentially complementary) are combined as follows.

A disease of his whole body evolved, characterised by a fever which was said to affect his internal organs. He had 'ulceration of his intestines', pain all over the colon, inflammation in the lower abdomen and a 'destructive affliction' (*kakosis*) of the abdominal organs. There was 'transparent swelling' of the feet which exuded a watery substance, and putrefaction of his genital organs, which produced worms. He was short of breath (*dyspnoia*), had 'loathsome breathing' (perhaps halitosis) and breathed easier in the upright position (*orthopnoia*). Expiration was more difficult than inspiration, and he had episodes of gasping and severe coughing (*vêx*). There were 'convulsions' of his limbs. According to the *Wars* he had uncontrollable itching (*knêsmos*) of the skin, but in the corresponding passage in the *Antiquities* the original text referred to an insatiable need to 'receive something' (*dexasthai*). Certain modern translations considered this a corruption of the text, and changed *dexasthai* to *adaxasthai* — 'a need to scratch'. This suggestion would then bring the two Josephus works in line.⁴

Herod weakened and was taken across the Jordan to the warm springs at Callirrhoe at the northerly end of the Dead Sea. Here doctors decided that his body should be warmed, and immersed him in a tub of warm oil. He immediately collapsed, and rolled his eyes over backwards as if he was dying. The subsequent laments of his servants raised him from the stupor. He knew that he was dying and distributed gifts of money to his soldiers and friends, before being taken back to Jericho.¹⁸

Herod arrived there in severe melancholy. He then devised a diabolical scheme to ensure that his death would be associated with nationwide mourning (based on the assumption that the Jewish people would not spontaneously mourn his death). Notable Jews from all over the country were brought to Jericho and enclosed in the hippodrome. He then requested his sister, Salome, to see to it that they all be killed as soon as he died.¹⁸



In his misery he unsuccessfully attempted suicide with a fruit knife. A rumour now spread through the palace that Herod was dead, and his son, Antipater, planned insurrection against his father. When this was reported to Herod he immediately had Antipater executed. He then drew up his final will, nominating his three younger sons to succeed him: Archelaus as king of Judea, Antipas as tetrarch of Galilee and Perea, and Philip as tetrarch of the regions east of Galilee.¹⁸

Herod died in Jericho 5 days later, and was ceremoniously buried at Herodium (although his grave has never been located).⁴ Salome, contrary to instructions, then released the captive Jews from the hippodrome.¹⁸

Diagnosis

We have no clinical information about the disease of 43 BC, subsequent injuries, or severe illness of 5 BC.

The cause of the epidemic which followed Mariamme's death (29 BC) is unknown.¹⁵ It is also unknown whether this was related to the epidemic which, according to Josephus, struck Jerusalem between 25 and 23 BC.¹⁹ Herod then left the city on a hunting expedition, possibly to avoid the disease, and fell ill in Samaria. We suggest that Josephus's mention of an 'affliction' (*peisis*) of the area where the neck meets the head (*inoin*),¹⁵ might indicate neck stiffness, a sign of meningitis. This illness would also explain his irrational behaviour and transitory loss of reason, particularly so if the meningitis was associated with encephalitis, perhaps as manifestation of a viral meningoencephalitis.²⁰

Herod's final illness could well have been the same as that which occurred in 5 BC (aged 68 years).¹⁶ His vengeful and cruel reaction to the uprising when his golden eagle was removed from the temple gate¹⁸ on 13/14 March 4 BC might have been conditioned by his deteriorating health.

The final phase of his illness, as described above,¹⁸ which probably lasted only weeks, has been extensively reviewed, and authors have come up with a variety of diagnoses.^{4,21} We agree with Sandison,²² Kokkinos⁴ and others²³ that the likeliest diagnosis is that of chronic renal failure (uraemia) and secondary hypertensive cardiac failure. The previous history reveals no clues as to the cause of renal failure, unless the abdominal pain (and hypogastric pain in particular) points to cystitis as part of chronic cysto-pyelonephritis.

Terminal chronic renal failure (*uraemia*)²⁴ would explain Herod's progressive weakness, the intractable itching of the skin and his depressed (even deranged) state of mind. Uraemia characteristically causes muscle spasms which would explain the 'convulsions' of his limbs. Reference to 'ulceration of the bowels' could refer to uraemic diarrhoea, while mild pyrexia is common. Malodorous breath would have been typical uraemic halitosis.

Hypertension (with accelerated atherosclerosis) caused by chronic renal disease, and hypertensive heart failure fit in with Herod's shortness of breath (*dyspnoia*) relieved by the upright position (*orthopnoia*). Difficulty with expiration points to bronchospasm, a common manifestation of left heart failure. The transparent swelling of the feet exuding a watery substance, probably indicates dependent oedema, which may also extend to the rest of the lower extremities and back, depending on the position of the body. Constant abdominal pain may have resulted from liver congestion secondary to heart failure.²⁵ We find no good evidence for abdominal cancer²⁶ — the word *kakosis* refers merely to serious destructive disease for which malignancy is only one (unlikely) possibility. Cancer would hardly explain the rest of the syndrome. The syncope during a hot oil bath at Callirrhoe probably represented cerebral anoxaemia caused by sudden vasodilation in a person with a compromised cardiovascular system.²⁵

As suggested by various authors,^{4,22} the putrefying, worm-infested lesion of the genitalia could have been a fly maggot infestation (*myiasis*), perhaps based on bacterial or fungal intertrigo, common in oedematous (or obese) persons. Lack of hygiene and uraemia would have aggravated the condition.^{4,27} At his age venereal ulceration is less likely. The possibility that this was a so-called '*topos*' (stock theme) description is discussed below.²¹

Other diagnoses mentioned in the literature

Diabetes mellitus suggested by McSherry, Litchfield²⁸ and others, could be slotted into Herod's disease complex at various levels — by causing a nephrotic syndrome associated with severe oedema and ultimate chronic renal failure; by accelerating atherosclerosis and thus ischaemic heart disease; or by predisposing to infection, and monilial intertrigo in particular.²⁹ As a comprehensive aetiology it therefore merits serious consideration,²⁹ although pancreatic cancer³⁰ as cause of the diabetes can probably be excluded. However, Kokkinos⁴ points out that the grounds for a diagnosis of diabetes is based partly on the doubtful assumption that Herod had an increased appetite. This arose from the possible corruption of the *Antiquities* text (mentioned above) where the word *dexasthai*, meaning a 'need to receive', was translated to mean a 'need to receive food', indicating polyphagia, typical of diabetes mellitus.

Poisoning was suggested by Renan as early as 1776,³¹ but although part of the symptom complex (e.g. the abdominal symptoms) could possibly have been due to poisoning, it would hardly account for the rest of the clinical picture. Similarly Patrick's suggestion (in Sandison²²) of chronic amoebic dysentery as cause of the 'bowel ulceration', can at best explain only part of the syndrome.²²

Cirrhosis of the liver, which could have resulted from Herod's dissolute way of life,³² does cause oedema and even



jaundice-associated pruritis. However, in that case jaundice is usually severe, and jaundice was not noticed in Herod. Cirrhosis does not cause cardiac or pulmonary failure.³³

Discussion

This discussion of Herod's illness is based on the assumption that Josephus described actual symptoms and signs observed. Classicists such as Ladonceur²¹ warn that antique historians did not necessarily report factual observations but often wrote metaphorically in the mode of the time. Illnesses of infamous rulers in particular were dramatised in a stereotypical fashion — so-called 'topos' events. Ladonceur sees the final illness of Herod the Great as a case in point — the death of a hated despot is described as a horrifying incident. Like Africa,³⁴ Ladonceur points out that 'worms in putrefying tissues' associated with a slow agonising death, was a repetitive theme in the death sagas of many prominent but cruel individuals of antiquity. Africa perpetuates the discredited concept of 'phthyrasis', a condition in which 'vermin' (specifically mites of animal origin) are supposed to penetrate the body and gradually destroy internal organs from within. Mommsen³⁵ was right when, as early as 1908 he dismissed phthyrasis as a disease that exists only in the world of fantasy.

References

1. Ferguson E. *Backgrounds of Early Christianity*. Grand Rapids, Mich.: Eerdmans, 1987: 328-330.
2. Sizoo A. *Uit De Wereld Van Het Nieuwe Testament*. Netherlands: Kampen (JH Kok NV), 1950: 6-9.
3. Schürer E. *A History of the Jewish People in the Time of Jesus Christ*. Vol. I. (Translated by J McPherson. Edinburgh: Hendrickson, 1998: 400-467.
4. Kokkinos N. Herod's horrid death. *Biblical Archaeology Review* 2002; 43: 28-62.
5. Otto W Herodes. In: Wissowa G, Kroll W, eds *Paulys Realencyclopädie der Classischen Altertumswissenschaft*. Suppl. II Stuttgart: Metzlersche Verlagsbuchhandlung, 1913: 1-200.
6. Merkel H, Korol D. Herodes der Grosse. In: Dassmann E, ed. *Reallexikon für Antike und Christentum*. Stuttgart: Anton Hiersemann, 1988: 815-849.
7. Josephus. *The Jewish War* (Translated by HSJ Thackeray. Loeb Classical Library, London: Heinemann; Cambridge, Mass.: Harvard University Press, 1956.
8. Josephus. *Jewish Antiquities* (Translated by R Marcus. Loeb Classical Library. Cambridge, Mass.: Harvard University Press; London: Heinemann, 1980.
9. Josephus. *Jewish Antiquities*. 16:233.
10. Kokkinos N. *The Herodian Dynasty*. Sheffield: Sheffield Academic Press, 1998: 305-308, 372-375.
11. Josephus. *Jewish Antiquities*. 17: 155-167, 213. *Jewish War*. 1: 647-654.
12. Josephus. *Jewish Antiquities*. 14: 295.
13. Josephus. *Jewish Antiquities*. 14: 456. *Jewish War*. 1:332.
14. Josephus. *Jewish Antiquities*. 16: 315.
15. Josephus. *Jewish Antiquities*. 15: 240-252. *Jewish War*. 1. 435-436.
16. Josephus. *Jewish Antiquities*. 17: 58-60.
17. Josephus. *Jewish Antiquities*. 17: 146-148
18. Josephus. *Jewish Antiquities*. 17: 168-194. *Jewish War* 1: 656-665.
19. Josephus. *Jewish Antiquities*. 15: 299.
20. Harter DH, Petersdorff RG. Bacterial meningitis and brain abscess; Viral diseases of the CNS. In: Wilson JD, Braunwald E, Isselbacher KJ, et al., eds. *Harrison's Principles of Internal Medicine*. New York: McGraw-Hill, 1991: 2023-2038.
21. Ladonceur DJ. The death of Herod the Great. *Classical Philology* 1981; 76(1): 25-34.
22. Sandison AT. The last illness of Herod the Great, King of Judaea. *Med Hist* 1967; 11: 381-387.
23. Merrins EM. The deaths of Antiochus IV, Herod the Great and Herod Agrippa I. *Bibliotheca Sacra* 1904; 61: 558-560. Kottek SS. *Medicine and Hygiene in the Works of Flavius Josephus*. Leiden: Brill, 1994: 186-190.
24. Davison AM, Cumming AD, Swainson CP. Chronic renal failure. In: Edwards CRW, Bouchier AD, Haslett C, Chilvers ER, eds. *Davidson's Principles and Practice of Medicine*. New York: Churchill Livingstone, 1995: 631-636.
25. Boon NA, Fox KAA. Diseases of the cardiovascular system. In: Edwards CRW, eds. *Davidson's Principles and Practice of Medicine*. New York: Churchill Livingstone, 1995: 191-312.
26. Jones AHM. *The Herods of Judaea*. Oxford: Clarendon Press, 1938: 47.
27. Marshall J. *Diseases of the Skin*. Edinburgh: E and S Livingstone, 1960: 181.
28. Litchfield WR. The bittersweet demise of Herod the Great. *J Roy Soc Med* 1998; 91: 283-284. McSherry J. Worms, diabetes and King Herod The Great. *Journal of Medical Biography* 1997; 5: 167-169.
29. Foster DW. Diabetes mellitus. In: Wilson JD, Braunwald E, Isselbacher K J, et al., eds. *Harrison's Principles of Internal Medicine*. 12th ed. New York: McGraw-Hill, 1991: 1739-1759.
30. Meyshan J. The disease of Herod K Great, King of Judaea. *Harefuah* 1957; 53: 154-156.
31. Renan E. *Les Apôtres*. Paris: Levy M, 1886:65.
32. Neuburger M. *Die Medizin in Flavius Josephus*. Bad Reichenhall: Bachkunst, 1919: 58. Schalit OA. *König Herodus: Der Mann und Sein Werk*. Berlin: de Gruyter, 1969: 639-640.
33. Podolsky DK, Isselbacher KJ. *Cirrhosis of the liver*. In: Wilson JD, Braunwald E, Isselbacher KJ, et al., eds. *Harrison's Principles of Internal Medicine*. 12th ed. New York: McGraw-Hill, 1991: 1340-1352.
34. Africa T. Worms and the death of kings. *Classical Antiquity*. Berkeley: University of California Press, 1982: 1-17.
35. Mommsen T. *Römische Geschichte*. Vol. II. Berlin: August Hirschwald, 1908: 376.

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