



WHAT KILLED

Sir Stamford Raffles?

Text by Dr Kenneth Lyen

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Introduction

Sir Stamford Raffles (6 July 1781–5 July 1826) landed in Singapore on 28 January 1819 when he was 37 years old.¹ On 30 January that year, Raffles and the Temenggong (governor) for the Sultan of Johore signed a preliminary agreement to the establishment of a British trading post on the island. A week later, on 6 February, Raffles signed a treaty with Tunku Long declaring him to be the lawful sovereign of Johore and Singapore. This established him as Sultan Hussein Mohamed Shah. The treaty transferred the control of Singapore to the East India Company.²

While Raffles was setting up Singapore as a free port, his wife Sophia was pregnant and living in Penang. Raffles visited her on 13 February but the baby did not arrive and Raffles had to rush off to Acheen, Sumatra, to establish trading rights for this port. Sophia gave birth to a boy, Leopold Stamford, in the absence of the father.³

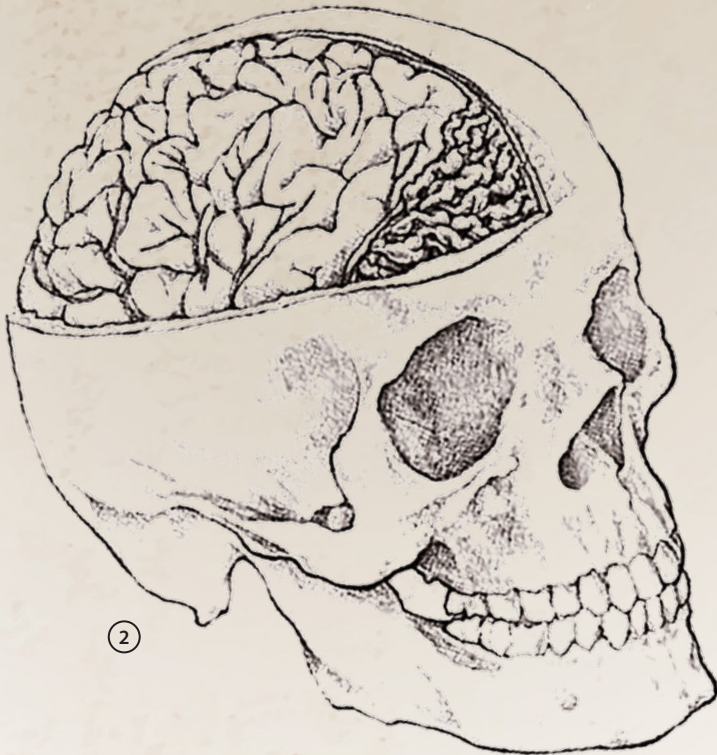
In the meantime, not only did Raffles establish Singapore as a trading port, but he also instituted the rule of law and laid the foundations of a city plan which was later executed by Philip Jackson.⁴

From 1820 to 1822, Raffles returned to British Bencoolen (Bengkulu City, Sumatra), where he was Lieutenant-Governor. During that time, his four children, all less than four years old, died of dysentery.³

Raffles returned to Singapore in 1823 where he established a school that was to become Raffles Institution.⁵ He also prohibited gambling, taxed alcohol and opium so as to discourage drunkenness and opium addiction, and banned slavery.⁶

During that year (1823), his wife gave birth to their fifth and only surviving child. In 1824, Raffles left Singapore and returned to England for good.³

Raffles died suddenly on 5 July 1826 just before his 45th birthday.⁷ Although life expectancy in mid-19th century



the following morbid appearances were observed: Upon removing the cranium, the anterior part of the right frontal bone was twice the thickness of the left. ... The outer covering of the brain was in a highly inflamed state, which had been of long continuance from the thickness of the coats of the vessels. In one part, immediately upon the sinciput (front of the skull), this vasculosity exceeded any thing I had ever seen. In the right ventricle of the brain there was a coagulum of the size of a pullet's egg, and a quantity of bloody serum escaped, which measured six ounces. This extravasation of blood, which had been almost instantaneous, was the cause of immediate death, so far as the faculties of the brain are concerned."

There is an additional note written by Sir Everard Home, in which he stated: "a space two inches long and one broad was so loaded with blood vessels as to appear of a different organisation from the rest of the membrane."

Sir Everard Home "pronounced his (Stamford Raffles) death to have been caused by an apoplectic attack beyond the control of all human power". In this context, the apoplectic attack can be interpreted as a stroke.³

England was 40 years, it is still a shock to hear someone dying so young.

The exact cause of his death was only elucidated in 1998 by senior consultant neurosurgeon Dr James Khoo.

Raffles' health

While in Bencoolen (1820–1822), Raffles was already in poor health. In December 1821, he wrote to his friend the Duchess of Somerset saying that he was unwell for stretches of 12 hours, for several days in a month. In February 1822, after the death of his children, he wrote to the Duchess saying that his wife was suffering from depression, and that he himself "had two of the most severe attacks [he] ever suffered." The last occasion involved "a fever which fell on the brain, and [he] was almost mad. [He was] still an invalid, and confined to [his] room." In 1823, he wrote saying that he suffered from "dreadful headaches". In another letter, he wrote saying that he "had another attack in the head, which nearly proved fatal, and the doctors were for hurrying [him] on board ship for Europe without much ceremony."³

Back in England, Raffles' health did not improve. A posthumous article appearing in the July 1826 issue of the *Gentleman's Magazine* said that before he died, he suffered "bilious attacks (headaches, vomiting and abdominal pain) under which he had laboured for some days."⁸

The day before his birthday

Preparations were actually being made to celebrate Raffles' 45th birthday on 6 July 1826. However, just a day before his birthday, he was found dead at the foot of the spiral staircase in his home at Highwood House in Mill Hill, North London.³

Post-mortem

A post-mortem was conducted by the English physician, Sir Everard Home, who reported:⁸

"On inspecting the body of the late Sir Stamford Raffles in the evening of the 5th of July 1826,



Burial

Sadly, Raffles was not allowed to be buried inside his local parish church of St Mary's Hendon because the vicar, Theodor Williams, whose family had made their money from the slave trade, objected to Raffles' anti-slavery advocacy.

The location of Raffles' body was not known until 1914 when it was found in a vault.³

Re-evaluation of the cause of death

Re-evaluation of the postmortem findings by the neurosurgeon, Dr James Khoo, led him to conclude that the thickened right anterior skull was best interpreted as caused by either a dural arteriovenous fistula or an arteriovenous malformation.⁹

The difference between these two conditions is that in a dural arteriovenous fistula, the dural arteries are abnormally connected to the dural venous sinus. This increased blood flow from the dural arteries can cause the calvarium (skullcap) to thicken, which is what was found at autopsy. The other effect is that shunting of arterial blood into the dural sinus can cause raised intracranial pressure, cerebral oedema and reversal of blood flow into

the cerebral cortical veins. All this may result in severe headaches. Furthermore, the increased venous pressure can result in intracerebral bleeding.

In contrast, although cerebral arteriovenous malformations can also have similar effects, they are less likely to cause the calvarium to thicken. The reason is that the arterial supply to a cerebral arteriovenous malformation is predominantly from the cerebral and the dural (meningeal) arteries.¹⁰

Hence, the most likely underlying cause of Sir Stamford Raffles' symptoms and death is that of a dural arteriovenous fistula.

Final note

Some researches have recently revealed Raffles to not be the benevolent altruistic person that he had sometimes been depicted. Instead, more credit should have been conferred upon William Farquhar who governed Singapore during its formative period.¹¹

Nevertheless, it is remarkable that Sir Stamford Raffles could achieve so much in such a short life, despite suffering from severe headaches and being struck by the tragic death of four of his young children. His far-sighted vision started Singapore on the right footing that affects us to this very day. English is still one of the main languages used, the port is a critical component of Singapore's economy, the legal system is based on the British's, and the educational system and the school he started are thriving. He was also against the slave trade.¹² It is fitting that we honour Sir Stamford Raffles as we celebrate the 200th anniversary of the founding of Singapore.

Acknowledgement

I thank Dr James Khoo and Dr Ho Kee Hang for their comments and clarification on the autopsy report of Sir Stamford Raffles. ♦

References

1. Makepeace W, Brooke GE, Braddell RSJ (Eds). *One hundred years of Singapore (Volume 1)*. Singapore: Oxford University Press, ISBN 978-0342742905. 1991.
2. *Sir Stamford Raffles: Book of Days*. Singapore: *Antique of the Orient*, ISBN 9789810051334. 1993.
3. Gledinning V. *Raffles: And the Golden Opportunity*. Singapore: Profile Books, ISBN 9781788160902. 2018: 296-7.
4. Bonny Tan. "Raffles Town Plan (Jackson Plan)". Singapore Infopedia. National Library Board.
5. *Sophia Raffles, Sir Thomas Stamford Raffles (1830). Memoir of the Life and Public Services of Sir Thomas Stamford Raffles, F.R.S.* Oxford University Press.. ISBN 978-0195889970. 1991.
6. Turnbull, C.M. (2009). *A History of Modern Singapore, 1819–2005*. NUS Press. ISBN 9789971694302.
7. Bastin JS, Weizeanegger J. *The Family of Sir Stamford Raffles*. Singapore: Marshall Cavendish Editions, ISBN 9789814721769. 2016.
8. *Obituary: Sir Thomas Stamford Raffles. The Gentleman's Magazine*, 1826: 77–86. Retrieved via BookSG.
9. Khoo JC, Kwa CG, Khoo LY. *The death of Sir Thomas Stamford Raffles (1781-1826)*. *Singapore Med J* 1998; 39(12):564-5.
10. Kleihues G. *Greenfields' Neuropathology Fifth Edition*. Adams JH and Duchen LW (eds). Edward Arnold ISBN 978-1498721288. 1992: 269-302.
11. Wright NH. *William Farquhar and Singapore: Stepping out from Raffles' shadow*. Entrepot Publishing. ISBN 9789671428115. 2017.
12. Wikipedia, *the free encyclopaedia*. *Stamford Raffles*. Available at: https://en.wikipedia.org/wiki/Stamford_Raffles.

Legend

1. Engraving of Sir Stamford Raffles by Thomson, taken from a miniature (1824)
2. Impression of post-mortem findings by Sir Everard Home drawn by LY Khoo. Used with permission from Dr James Khoo
3. Portrait of Sir Everard Home painted by Thomas Phillips (1829)
4. Statue of Sir Stamford Raffles by Thomas Woolner unveiled in 1887, located at Empress Place, in front of Victoria Memorial Hall

