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Horner eponyms

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INTRODUCTION

The eponym: Horner is commonly used for several terms in the health sciences, but they are not honorifics for the same person. Also, some of the terms should probably be for other people since one of the doctors Horner was not always the original person to publish about them.

SYNDROME

Probably the best-known eponym is Horner syndrome. This term is generally understood to refer to the clinical presentation of oculosympathoparesis, which usually presents with the triad of symptoms: miosis, ptosis/enophthalmos, and impaired vasomotor/sudomotor activity in the face and neck.¹ It is caused by an interruption of the sympathetic supply of the head/face anywhere along the pathway. This syndrome was first described as early as 1727 by François Pourfour du Petit (1664-1741) by cutting the intercostal nerves in dogs.^{2, 3} The first clinical description of this problem was by Edward Hare (1812-1838) in 1838.^{4, 5} He described a 40-year old man with a rapidly growing neck tumor that was compressing his brachial plexus. Hare noted that the man also had miosis and ptosis, which he found perplexing since no cranial nerves were affected. In 1852, Claude Bernard (1813-1878) accurately described the clinical presentation in dogs in which different portions of the sympathetic nervous system were sectioned.⁶ Since he gave a full account of the problem, it is common in France (and Italy) to refer to the condition as Bernard-Horner syndrome or even just Bernard syndrome. Silas Weir Mitchell (1829-1914) described in 1863 a case of an American Civil War soldier with a bullet wound to the neck that eventually developed slight ptosis, miosis, enophthalmos, reddened conjunctiva of the right eye, and an oval deformity of the right pupil.⁷ It was not until 1869 that Johann Friedrich Horner (1831-1886)⁸ gave a careful and very descriptive account of a woman with long-standing headaches that eventually developed ptosis and miosis along with hyperemia and anhydrosis of the side of her face.⁹ Dr. JF Horner was actually the first to recognize that a man with red-green color blindness (known as Daltonism) transmitted this anomaly to his male grandchildren through his daughter who was not color blind.¹⁰

His description included:
No female is color-blind. ... Color-blind fathers have color-normal daughters. ...
The color-blind sons always descend from color-normal mothers. ... The sons of the daughters, whose fathers are color-blind, have the highest risk of being color-blind.

This pattern is sometimes known as Horner law and was eventually recognized as sex-linked genetic transmission.



Johann Friedrich

MUSCLE

The musculus orbicularis oculi pars lacrimalis is commonly referred to as the Horner muscle. It was actually discovered by Jacques-François-Marie Duverney (1661-1748).^{11, 12} The first published description of this muscle appeared in 1730 in a dissertation by one of Duverney’s students, Johann Caspar Schobinger, who clearly credited Duverney with priority for the discovery.¹³ Duverney’s own published description did not appear until 1745.¹⁴ In 1805, Johann Christian Rosenmüller (1771-1820) published an atlas that included illustration of what he called the Muskel des Thränensackes or musculus sacci lacrymalis, which appears to be the same muscle.¹⁵ William Edmonds Horner (1793-1853)^{16, 17} wrote about his findings of the attachments of the orbicularis oculi muscle in 1822.¹⁸ In this report he described a small muscle located on the posterior part of the lachrymal ducts, which he later called the tensor tarsi muscle.¹⁹ In 1824, Horner recapitulated his findings and reviewed several other published authorities.²⁰



William Edmonds

SIGN

On April 28, 1922, Alfred Baker Spalding (1874-1942) presented a paper to the Society of the Alumni of the Sloane Hospital for Women in which he described that overlapping of fetal skull bones as seen on plain film x-ray was a pathognomonic sign of intra-uterine death.²¹ This paper was published later that same year which led to the commonly used eponym: Spalding sign. On December 16, 1921, David Alfred Horner (1884-1945)^{22, 23} presented a paper to the Chicago Gynaecological Society in which he also described the phenomenon of overriding of the skull bones visible on plain film x-ray being a sign of intra-uterine death.²⁴ This paper was also published in the same journal as Spalding’s manuscript but a month later. Even though the term Spalding sign is usually used, especially more recently as an ultrasonography finding, the, maybe more appropriate, eponym Horner sign can occasionally be found.²⁵



David Alfred

CONCLUSION

The stories behind the various Horner eponyms show that history does not quite always remember the “right” person.

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