LETTER TO THE EDITOR

Leonardo da Vinci's Vitruvian Man: a renaissance for inguinal hernias

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The drawing of the *Vitruvian Man* by the famed renaissance artist Leonardo da Vinci in the late fifteenth century (circa 1487) is considered to be one of the world's greatest works of art. It is da Vinci's representation of ideal human proportions described by the ancient Roman architect Vitruvius in Book III of his treatise *De Architectura* [1–3]. As a result, it is generally considered to be a supreme example of the synergy between art and science.

On studying the drawing (Fig. 1), one can observe that the left inguinal region of the *Vitruvian Man* demonstrates a spherical fullness above his groin that is consistent with the region above and medial to the pubic tubercle. This corresponds to the classical manifestation of an inguinal hernia, and may signify the representation of such a hernia in Leonardo's depiction of the human form.

Although the *Vitruvian Man* is considered to be the perfect anatomical representation of a man [1, 2], this was never directly stipulated. Leonardo da Vinci made the drawing in the coronal plane to illustrate the geometrical dimensions of the human body. Consequently his portrayal of a man with a hernia is possible, particularly as da Vinci studied anatomy through the observation of living subjects and cadaveric dissection [3, 4].

Knowledge of inguinal hernias was present during the renaissance, with physicians and surgeons such as Antonio Benivieni describing several different types of hernia in Florence at the same time that da Vinci was present in the city [3, 5]. The *Vitruvian Man* may therefore have been modelled on a living or cadaveric individual who had

suffered from an asymptomatic left inguinal hernia, or who may have died from the complications of such hernias by means of incarceration or strangulation.

In summary, I describe the possibility that a left inguinal hernia is depicted in Leonardo da Vinci's *Vitruvian Man*.

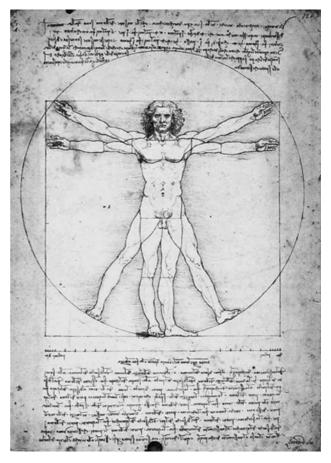


Fig. 1 *Vitruvian Man* by Leonardo da Vinci, circa 1487. Gallerie dell'Accademia, Venice

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To the best of my knowledge this has never before been identified. For the first time it reveals the presence of a hernia in one of the world's most prominent drawings and serves to highlight the longstanding occurrence of this condition afflicting mankind throughout the ages.

Conflicts of interest None.

References

 Creed JC (1986) Leonardo da Vinci, Vitruvian Man. JAMA 256:1541

- Le Floch-Prigent P (2008) The Vitruvian Man: an anatomical drawing for proportions by Leonardo Da Vinci [French]. Morphologie 92:204–209
- 3. White M (2000) Leonardo: the first scientist. Little and Brown, London
- Clayton M (2001) Leonardo da Vinci as an anatomist. Trans Med Soc Lond 118:57–70
- Costa A, Weber G (1963) The beginning of pathological anatomy in the Florentine 15th century, studied from the texts of Antonio Benivieni, Bernardo Torni and Leonardo Da Vinci (in Italian). Arch De Vecchi Anat Patol 39:429–878

