

## Correspondence

### A historical review of gait analysis

*To the editor*

Drs. Al-Zahrani and Bakheit<sup>1</sup> noted that systematic gait analysis is a recent development. However, there has been at least one distinguished predecessor. Ibn Ridwan (998-1069)<sup>2,3</sup> advocated a thorough history and examination including evaluating muscle strength by lifting weights and grasping objects, and by observing the patient's gait both forwards and backwards.<sup>3</sup>

*Vladimir Hachinski*  
*University of Western Ontario*  
*London, Canada*

*Reply from the Author*

We are grateful to Professor Hachinski for pointing out Ibn Ridwan's contribution to human gait analysis.

Clearly, the contribution of Islamic and Arabic scholars to neurology and to the medical sciences in general is not widely known and deserves to be publicized

*Khaled S. Al-Zahrani*  
*Magrid O. Bakheit*  
*PO Box 3643, Riyadh 11484,*  
*Kingdom of Saudi Arabia*

### References

1. Al-Zahrani KS, Bakheit MO. A historical review of gait analysis. *Neurosciences* 2008; 13: 105-108.
2. Ibn Ridwan AR. Ibn Ridwan. In: Gillispie CC, editor. *Dictionary of scientific biography*. Vol XI. New York (NY): Charles Scribner's Sons; 1975. p. 444-445.
3. Hachinski V. Neurology in Islamic Spain: a call for further research. *J Hist Neurosci* 1993; 2: 45-51.

### Authorship entitlement

Excerpts from the Uniform Requirements for Manuscripts Submitted to Biomedical Journals updated November 2003.  
Available from [www.icmje.org](http://www.icmje.org)

The international Committee of Medical Journal Editors has recommended the following criteria for authorship; these criteria are still appropriate for those journals that distinguish authors from other contributors.

Authorship credit should be based on 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3.

Acquisition of funding, collection of data, or general supervision of the research group, alone, does not justify authorship.

An author should be prepared to explain the order in which authors are listed.