Correspondence

(The Editors do not hold themselves responsible for opinions expressed by correspondents)

Reply to the letter to the Editor by Derakhshan: Laterality of motor control and breathing

The Editor,

We thank Dr Derakhshan for his comments and for his clarification on motor control of diaphragmatic excursion. However, he regrettably misquotes two points of our manuscript.

Firstly, Table I was correct, and the mean amplitude of the right hemidiaphragmatic movement during spontaneous breathing in the control group was less than that of the left hemidiaphragmatic movement in our study. Similar to our study, Wade [1] and Alexander [2] reported that diaphragmatic excursion was greater on the left side in healthy subjects. Kirju et al [3] showed that motions in the right and left hemidiaphragms changed with posture. Therefore, we performed all sonographic exams in the same supine position to avoid postural changes.

Secondly, in our study, when the control group and the right hemiplegic group were compared in terms of diaphragmatic excursions, no significant difference was observed between the movements of the right hemidiaphragm in spontaneous and deep respiration. In the right hemiplegic group, a decrease in the left hemidiaphragmatic

movement rather than in the right is still an unexpected finding.

Yours

Nuray Voyvoda

¹N VOYVODA, MD AND

²G KARATAŞ, MD

¹Department of Radiology
Kocaeli Acibadem Hospital
Kocaeli
Turkey

²Department of Physical Medicine and Rehabilitation
Gazi University School of Medicine
Ankara
Turkey

(Received 5 December 2011, Accepted 7 December 2011)

DOI: 10.1259/bjr/15705066

References

1. Wade O. Movements of the thoracic cage and diaphragm in respiration. *J Physiol* 1954;124:193–212.
2. Alexander C. Diaphragm movements and the diagnosis of diaphragmatic paralysis. *Clin Radiol* 1966;17:79–83.
3. Kiryu S, Loring SH, Mori Y, Rofsky NM, Hatabu H, Takahashi M. Quantitative analysis of the velocity and synchronicity of diaphragmatic motion: dynamic MRI in different postures. *Magn Reson Imaging* 2006;24:1325–32.

Address correspondence to: Dr Nuray Voyvoda, Kocaeli Acibadem Hospital, Department of Radiology, Derince, Kocaeli, Turkey. E-mail: nuraykad@gmail.com