□ LETTERS TO THE EDITOR □

Letter to the Editor Referring to “Peripheral Nerve Hypertrophy in Chronic Inflammatory Demyelinating Polyradiculoneuropathy Detected by Ultrasonography”**Key words:** ultrasound, conduction block, CIDP**(Inter Med 48: 2049, 2009)****(DOI: 10.2169/internalmedicine.48.2441)**

To the Editor We read with great interest the article by Imamura et al (1) focused on relationships between ultrasonographic and neurophysiological findings in conduction block in patients affected by chronic inflammatory demyelinating polyradiculoneuropathy. The authors showed an ultrasound picture of a median nerve bead-like hypertrophy at the site where a motor conduction block was detected. Previous studies using ultrasound and magnetic resonance imaging in chronic inflammatory demyelinating polyradiculoneuropathy or other chronic inflammatory neuropathies showed diffuse hypertrophy of the nerves and roots (1-5). However, a correlation between ultrasound findings and the neurophysiological picture has never been described prior to the paper of Imamura et al. In our neurophysiologic lab we recently started to perform ultrasound in patients affected by chronic inflammatory demyelinating polyradiculoneuropathy. In some patients, we observed an ultrasound picture as Imamura et al described, characterized by a focal enlargement of nerve cross-sectional area and diameter. Thanks to a high frequency probe we were able to observe that the focal enlargement of the nerve diameter is often the result of enlargement of a single fascicle causing dislocation of the ad-

jacent fascicles. Upon neurophysiological evaluation, focused on the same nervous segment where ultrasound alteration was visualized, we observed the presence of conduction block, just as that reported by Imamura et al. By first performing the inching technique on the nerve where we detected a conduction block, we obtained an ultrasound picture like the one described above. In our opinion, by detailed analysis of the picture published by Imamura et al, it is possible to observe that also in their case, the nerve hypertrophy was due to a single enlarged fascicle. Indeed it is possible to visualize adjacent to the enlarged fascicle the presence of two dislocated fascicles of normal dimensions. Considering the picture published by Imamura et al and our observation, it is possible to hypothesize that there is likely a great correlation between ultrasound findings and the neurophysiological picture in chronic inflammatory demyelinating polyradiculoneuropathy. In particular, a focal enlargement of the nerve cross-sectional area, caused by an increase of a single or a small portion of nerve fascicles, seems to be associated with the presence of a conduction block. This observation may provide a helpful tool in the diagnosis of conduction block in chronic inflammatory demyelinating polyradiculoneuropathy, especially when the conduction block is located in a nervous segment barely explorable with the inching technique. More studies are necessary to confirm this data and to extend ultrasonographic evaluation to other neurological diseases characterized by nerve conduction blocks.

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