Abstract

**Background:** Visual disturbances (VDs) are reported with an average rate of 1.4% after foam sclerotherapy (FS). Some clinical clues indicate that they could correspond to migraine with aura (MA).

**Aims:** To validate the hypothesis that VDs occurring after FS correspond to MA and are not transient ischaemic cerebro-vascular events.

**Method:** A prospective multicentre study was carried out by the French Society of Phlebology in collaboration with the Neurology Department of the Marseille University Hospital (France). We included prospectively and consecutively all patients who experienced VDs after FS using air to make the foam. The patients were assessed (1) clinically with a specific form describing procedures of FS and recording neurological symptoms, later analysed by a neurologist specialized in migraine; and (2) by a brain diffusion-weighted magnetic resonance imaging (MRI) (T1, T2, T2*, diffusion) carried out within two weeks and analysed by a neuroradiologist.

**Results:** Twenty patients, 16 women and four men, were included in 11 phlebology clinics. All kinds of veins were treated. VDs occurred in average seven minutes after FS. Clinical assessment showed that VDs presented characteristics of MA in all patients, with headache in 10 and without in 10. Paresthesia was observed in five patients and dysphasic speech disturbance in one. Fifteen patients (75%) had a personal history of migraine. Fifteen MRIs were performed within two weeks (mean: 8 days) and three were late (26 days). All of them were normal. MRI was not performed in two patients.

**Conclusion:** These results show that VDs occurring after FS correspond to MA and are not transient ischaemic cerebro-vascular events. We suggest a pathophysiological hypothesis resting on the release of endothelin that would reach the cerebral cortex through a paten foramen ovale. Keywords: foam sclerotherapy; visual disturbance; migraine with aura; endothelin.

**Key words:** visual disturbance, foam sclerotherapy, varices, migraine.