Environmental reduplication associated with a right thalamic haemorrhage

Sir: Environmental reduplication or reduplication of place is an uncommon disorder (and exceptional as an isolated cognitive deficit) of spatial orientation. The patient states that there are two or more places with identical attributes, although only one exists in reality. The location of the lesion or lesions responsible for this disorder was uncertain until Benson et al suggested, because there were no specific neuropathological correlations, that it may be the result of combined right hemisphere and frontal lobe dysfunction. Recently, Ruff and Volpe reported four patients with clear-cut evidence of right frontal or parietal lobe injury, confirming Benson’s view about the importance of the non-dominant hemisphere pathology. Therefore, we wish to record an unusual case of environmental reduplication associated with right thalamic haemorrhage.

A 74-year-old right-handed hypertensive man was admitted with a sudden onset of headache, somnolence, left-sided hemiparesis, left sensory loss and a left homonimous visual field defect with a tendency to neglect the visual deficit. His past history was unremarkable with the exception of a mild intellectual decline in the last few years. A CT scan showed a right thalamic haemorrhage with extension to the posterior limb of the internal capsule and to the ventricular system, particularly the third and right lateral ventricles (figure). A moderate cerebral cortical atrophy with mild ventricular dilatation was also observed. After five days he was awake and alert, but aphasic, without aphasia, apraxia, agnosia or disturbances of the body scheme. There was no right-left disorientation. His memory for past events was normal, but the immediate recall was poor, and he had difficulty in learning new material. While drawing, he worked from right to left on the right side of the paper, with neglect of the left side contours. He placed the midpoint of a line far to the right. He was orientated in person and time, but when asked where he was he stated that he was in Finland. When he was told he was in Buenos Aires his clinic he said: "Oh, yes, I’m in a clinic: it is a nice clinic like the one you have mentioned, but it isn’t in Buenos Aires, it is in Finland". While in the clinic he always insisted that it was located outside Buenos Aires, although the location of the replicated place was varied from day to day. Later on he was transferred to his home where this remarkable disorder of orientation persisted until his death, two months after the stroke. The following is an example of this disorientation. “Where are you?” “I’m at home, I’ve been living here for 30 years” (correct). “Where is your home?” “They say it is in Buenos Aires, but I don’t know which city is this”. (Sometimes he precisely mislocated his home in any other city or country in the world, such as Paris, Quito, Santiago de Chile, Venezuela and Spain). “Which street do you live in?" “I live in Talaclahuano Street” (correct). “But Talaclahuano Street is in Buenos Aires, isn’t it?”, “Yes, yes, it may be”, “Then your house is in Buenos Aires?”; “They say so, but I don’t think it is in Buenos Aires”.

To our knowledge, this is the first case of environmental reduplication associated with a thalamic injury. Fisher described a hypertensive woman with a right thalamic haemorrhage, who had a severe disorientation of place, but, unlike our patient, she did not show the pattern of reduplication.

We think this striking behavioural abnormality developed in this case as a consequence of an acute right hemisphere injury superimposed on a background of a mild diffuse cerebral involvement. It is also interesting to note that the reduplicative phenomenon persisted despite the fact that the patient was transferred from the clinic to his home.

References


Intraduillary spinal schwannoma

Sir: Schwannoma, originating from the schwann cells, affects for approximately 30% of primary intraspinal neoplasms. However, intraduillary schwannoma of the spinal cord has been rarely reported. Although microsurgical techniques and computed spinal tomography have become available, total removal of a spinal intraduillary tumor is considered to be a difficult procedure and neurological sequelae may remain after operation. Intraduillary schwannoma may often be misdiagnosed as spinal cord glioma on operation, and in these instances, total