

## Clinical spectrum and etiological correlates of 96 patients with occipital seizures: Study from a tertiary care referral university hospital, North India

MM Mehndiratta, P Phul, \*P Mehndiratta

Department of Neurology, G.B. Pant Hospital, New Delhi; \*Aligarh Muslim University, Aligarh, India

*Background and Objective:* Occipital epilepsy, although relatively uncommon is probably under-recognized. The occipital phenomenon can have variable presentations which are sometimes difficult to recognize, if proper history regarding the visual seizures is not sought. The transient visual loss may occur with occipital seizures as an ictal or post-ictal phenomenon. This study was conducted to study the various clinical presentations, etiological and radiological correlations of occipital lobe seizures.

*Methods:* This prospective study involving the epilepsy patients was carried out at G.B. Pant Hospital, New Delhi from December 2005 to December 2007. A total of 96 subjects having occipital seizures were found. The following patients were included: Subjects with positive visual hallucinations; subjects with perceptive illusions; and subjects with negative visual symptoms.

*Results:* Out of 96 subjects presenting with occipital seizures, 67.70% were males and rest were females. The mean age of presentation was  $21.84 \pm 9.12$  years and mean age of onset of occipital seizures was  $19.17 \pm 9.36$  years. The most common manifestation was positive visual hallucinations. The majority of the visual hallucinations were elementary, described as flashes of light, colored lights, stars and balls of light. Overall the positive phenomenon was present in 76.4% of subjects. The negative visual auras were present in 22% of subjects in the form of darkness or blind spots in front of their eyes, with 9.3% experiencing both these phenomena. The visual auras of only 13 subjects helped in localizing the lesion to the opposite occipital lobe by being present in one hemifield. The others had auras in both hemifields, thus with no localization value of the hemisphere involved. Seizures confined to occipital lobe were found in 22% of the subjects. Others had secondary generalization indicating suprasylvian, infrasyllvian or both type of spread.

All subjects underwent neuroimaging. CT head was done in 80 subjects and MRI in 22 subjects. Both were done in 6 subjects. The neuroimaging (CT/MRI) was found to be normal in 32 subjects. The most common abnormality was inflammatory granulomas which were seen in 43 subjects (67.18%). In these subjects, multiple lesions were found in 21 out of 43 (48.83%). The rest (51.17%) had single lesions. All the subjects underwent EEGs within a week of their presentation to us. EEG was found to be normal in 60% of the patients, abnormal in 40%. The most common abnormality was spike wave discharge. This was found confined to the posterior region (temporo occipital) in 12 (30.7%) subjects.

*Conclusion:* Majority of occipital seizures had visual symptoms consisting of positive visual auras, most are elementary.

### References

1. Taylor I, Scheffer IE, Berkovic SF. Occipital epilepsies: Identification of specific and newly recognised syndromes. *Brain* 2003; 126:753-69.
2. Hadjikitou S, Sawhney IM. Occipital seizures presenting with bilateral visual loss. *Neurol India* 2003; 51(1):115-6.