**Olfactory auras in patients with temporal lobe epilepsy**

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**Purpose:** To investigate the prevalence, the quality and characteristics of olfactory auras in patients with temporal lobe epilepsy (TLE), and to investigate the anatomical location of the lesion and etiology.

**Methods:** We reviewed medical records of 217 Chinese patients who underwent temporal lobectomy for medically intractable TLE between 1987 and 1998 in Taiwan. Patients presenting with olfactory auras were further inquired for detailed characteristics of their auras.

**Results:** In all, 12 patients had olfactory auras (5.5%), seven males and five females. All patients described the quality of olfactory auras unpleasant, and 11 patients (91.7%) were able to characterize their olfactory auras. Olfactory auras usually combined other auras, most frequently sensations of epigastric arising, nausea, and fear. Association with gustatory hallucination was uncommon in only one patient. On neuroimaging study, 11 patients had structural lesions involving the mesial temporal structures, two exclusively involving the amygdala. Histologic diagnosis included hippocampal sclerosis in seven patients (58.3%), neoplasm in four patients (33.3%), and arteriovenous malformation in one patient. Postoperatively, eight patients were seizure-free and three patients had rare seizures. However, none reported residual olfactory auras. **Conclusions:** Olfactory auras are infrequent in TLE. Hippocampal sclerosis is the most common etiology rather than tumors in this study. Mesial temporal structures, especially the amygdala, may play important roles in the genesis of olfactory auras.