ACHOO syndrome

Prevalence and inheritance

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In a questionnaire, four of 20 (20%) neurologists indicated they had a photic sneeze reflex. Two kindreds are presented that demonstrate the reflex is inherited in an autosomal dominant mode, but with variable expressivity manifested by sneezing after eyebrow plucking and/or hair pulling. The reflex may result from stimulation of the trigeminal nerve.

Index term: Sneezing


The symptom of sneezing on exposure to bright light has been previously reported in the medical literature, but evidently, little attention has been paid to these reports because most physicians are ignorant of the condition. Ophthalmologists are probably most aware because of sneezing provoked by ophthalmoscopy or the slit-lamp examination. Only briefly mention the “photic sneeze reflex.” In this study, two kindreds with the reflex are presented along with the prevalence of photic sneezing in a group of neurologists.

Case reports

Case 1. A 43-year-old male neurologist presented with the complaint of sneezing when moving suddenly from a dark to a bright environment. The symptom had been present for as long as he could remember. Characteristically, he would sneeze one to three times several seconds after bright light exposure. No other unusual occurrences provoked sneezing. The phenomenon could be prevented by wearing dark glasses. There was no history of vasomotor rhinitis or allergy. One of three sisters sneezed on light exposure. Also, one daughter from a previous marriage and his only child of a second marriage sneezed on exposure to bright light. The symptom was noted at an age of <1 month in his youngest daughter (Fig. 1). One child and one sister sneezed with hair pulling or eyebrow plucking, but not with bright light exposure.

Case 2. A 31-year-old female neurologist noted the symptom of sneezing immediately following light exposure. She also would sneeze usually three times immediately following exposure to bright light. Her father and her only sibling (a sister) also had the same symptom. Her sister’s only child, an infant female, also sneezed on exposure to bright light (Fig. 2).

NOTE: The first patient (Case 1) diagnosed the second patient’s (Case 2’s) problem when they walked out the door together into bright sunlight.

Methods and Results

To study the prevalence of the photic sneeze reflex, a written questionnaire was distributed at a random Neurology Grand Rounds. Four of 20 neurologists who responded (20%) indicated they exhibited the photic sneeze reflex and two claimed that the reflex was present in other family members (Table).

Discussion

Everett gave the first major review of the photic sneeze reflex in 1964. He reported a prevalence of 33% in male psychiatry residents,
CASE 1

Fig. 1. The proband (arrow) has two daughters (by different marriages) with the photic sneeze reflex. A third daughter and one of his sisters sneeze with hair pulling or eyebrow plucking. Another of his sisters also has the reflex. It is unclear whether the proband's mother was a photic sneezer, but she was an "easy sneezer."
or squinting. Light activation of the corneal branches of the first division of the trigeminal nerve is a less likely explanation. The hypothesis of trigeminal stimulation is also supported by the observation that hair pulling or eyebrow plucking may also provide sneezing in individuals within the kindred exhibiting the photic sneeze reflex.

Although there is no cure for the affliction, symptomatic relief is possible by wearing dark glasses.

References