Eye injuries in children caused by aerosols and sprays

EDITOR,—In compiling a district profile of childhood accidents, we investigated eye injuries to children attending the emergency outpatient clinic of the ophthalmology department at Darlington Memorial Hospital. Eye injuries caused by aerosols and other sprays were identified as a potential area for prevention. The ophthalmology emergency outpatient register for 1989 was analyzed for children filling 16 years and under who presented with a new episode of eye injury. The clinical records of those suffering injuries caused by sprays were reviewed to determine type of spray and outcome. During the year 1989 there were 90 new attendances owing to accidental eye injuries in children reported at Darlington Memorial Hospital. Of these, five (6%) were explicitly caused by sprays (Table 1). Three children were discharged from the clinic without follow up following emergency assessment and appropriate treatment. One child with superficial punctate keratitis and one with corneal erosion were discharged following a review in clinic after 1 and 5 days respectively. The estimated cost of treating these patients for the seven outpatient assessments was £266.

A computerized literature search using Medline has revealed no epidemiological literature on the subject and only one reference (non-UK) which related to an ocular injury in children caused by an artificial snow spray. Furthermore, the Childhood Accident Prevention Trust library knew of no reference to aerosol or spray injuries to children’s eyes (personal correspondence). This perceived lack of interest may be because of a high level of under reporting of such injuries.

The Department of Trade and Industry, National Health and Safety Management System (HASS) database for 1989 revealed only eight cases of childhood eye injuries as a result of sprays or aerosols. Types of spray included car paint, polish, silicone waterproofing, and toilet aerosol. If an annual figure of five new cases in one district general hospital ophthalmology outpatient clinic holds nationally, the level of under reporting is profound and the cost to the NHS is high.

In conclusion we would like to say that childhood eye accidents caused by aerosols or sprays are a potentially preventable cause of morbidity to children. Many of the injuries may be mild but should not be potentially very serious. Their epidemiology is unresearched. At present they may be seriously under reported, giving rise to a lack of awareness of the problem. Case history highlights a gap in the literature which requires filling through further research.

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Ophthalmologists should be aware of practice hazards and alert to increasing abuse of aerosols and sprays in children.