

nasopharynx and base of the skull in children with glue ear, and these are probably related to age and growth.¹⁴

This study was designed to evaluate the effect of adenoidectomy and adenotonsillectomy compared with no surgery and thus the data on effectiveness of treatment with ventilation tubes are somewhat a by-product. During the follow up a mean of 2.48 (1.39) tubes were required to maintain adequate hearing ability in those treated with tubes alone compared with a mean of 1.52 (0.85) in the children also receiving adenoidectomy. The two ears may not react identically with respect to insertion and reinsertion of tubes. In this study the overall need for reinsertion may have been higher, particularly in the no surgery group, than if bilateral tubes had been used instead of one tube.

RECOMMENDATIONS

Based on the data from this and other work we can suggest certain recommendations for the clinical management of children with severe established glue ear.

Owing to the spontaneous resolution seen before and after operation all children with glue ear should be examined with pneumatic otoscopy and tympanometry on at least two occasions over three months before the decision to operate is made.

The decision to combine adenoidectomy with insertion of tubes should consider the additional morbidity and mortality and also the probable need for an overnight stay in hospital for adenoidectomy compared with a day case admission for tube insertion alone.

The child's age is important in relation to adenoidectomy. With increasing age the operation is more effective in resolving glue ear than in younger children,¹³ in whom such surgery may also be contra-indicated for more general reasons of increased operative risk.

Initially insertion of tubes alone would be advisable in younger children with established glue ear unless there is coexisting gross adenoidal enlargement and chronic nasopharyngeal obstruction. Parents should, however, be advised that repeat treatment may be

required, particularly when insertion is carried out alone.

Adenoidectomy will considerably reduce the overall duration of glue ear. Furthermore, it can be recommended more confidently in older children. We have shown that the combination of adenoidectomy with insertion of tubes provides immediate restoration of subjective hearing ability because of the tube; longer term sustained resolution because of adenoidectomy; and also a possible reduction in the need for subsequent insertions of new tubes.

If bilateral cases of glue ear are treated with adenoidectomy and tube insertion there may be a case for bilateral myringotomy and aspiration of fluid but with insertion of only a unilateral tube. This would reduce by half the complications due to tubes.

Finally, parents of children with glue ear should be advised to stop smoking.

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Effect of influenza B virus infection on human performance

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Anecdotal evidence suggests that influenza reduces people's safety and efficiency in their workplace. Studies of experimentally induced influenza B in volunteers at the Medical Research Council Common Cold Unit showed that infection increased reaction times to stimuli occurring at varying intervals but that hand-eye coordination was unimpaired.¹ We report the results of two studies to determine whether natural influenza B similarly prolongs human reaction times and whether other performance indicators are affected.

Subjects, methods, and results

Altogether 178 volunteers aged 18-30 were studied. The studies were approved by the ethics committee, and all volunteers gave written informed consent. On recruitment to the first study 92 healthy subjects rated their mood and performed various tasks (a variable fore period simple reaction time task, five choice serial response task, repeated numbers detection task, free

recall test, delayed recognition memory test, logical reasoning test, focused attention task, and categoric search task) that have been described previously.^{2,3} Subjects who developed a symptomatic infection of the upper respiratory tract were retested while ill and again one month later when asymptomatic. Subjects who remained healthy (controls) were retested two and three months after recruitment. On recruitment to the second study 86 subjects, some of whom had symptomatic infections, rated their mood and performed 10 minute versions of the simple reaction time task and serial response task. Subjects were retested one month later.

A nasopharyngeal swab and blood sample for virological testing were collected from all symptomatic subjects, and a blood sample was collected from convalescent subjects four to six weeks later. A nasopharyngeal swab or paired serum samples, or both, were collected from healthy subjects. All specimens were coded before virological testing. Analyses of covariance were carried out in the first study, and *t* tests were used in the second study.

In the first study four of the 26 subjects with symptomatic infections had influenza B and showed a 38% increase in the mean time taken for the variable fore period simple reaction time task, from 320 (SD 24) ms when recruited to 440 (SD 90) ms when symptomatic. One month later, when the subjects were asymptomatic, their reaction time had fallen

to 385 (SD 75) ms. Their reaction time when symptomatic was also significantly longer than the repeat reaction time of the subjects who remained healthy (recruitment value 360 (SD 69) ms, repeat value 367 (SD 72) ms, second repeat value 373 (SD 124) ms) ($p < 0.05$). The subjects with influenza were 13% slower in performing the repeated numbers detection task than they had been on recruitment (recruitment value 555 (SD 79) ms, symptomatic value 627 (SD 132) ms, asymptomatic value 550 (SD 32) ms) and were significantly slower than the healthy controls (recruitment value 565 (SD 60) ms, repeat value 544 (SD 88) ms, second repeat value 549 (SD 72) ms) ($p < 0.05$). The infected subjects were also less accurate than the controls in the categoric search task (88% *v* 93%; $p < 0.05$). Influenza B had no effect on mood or on performance of the five choice serial response and focused attention tasks and free recall, delayed recognition memory, and logical reasoning tests.

In the second study seven of 72 subjects with symptomatic infections had influenza B, and there were 14 asymptomatic controls. The subjects with influenza B showed a 19% increase in the reaction time for the 10 minute version of the variable fore period simple reaction time test when compared with the controls (symptomatic value 440 (SD 82) ms, control value 369 (SD 79) ms, $p < 0.05$). One month later the two groups had similar reaction times. As before, influenza B had no effect on the five choice serial response task or mood.

Comment

The two studies showed that natural influenza B selectively impaired tasks in which the subjects were unaware when or where the target stimulus would appear. Memory, logical reasoning, and hand-eye coordination were unimpaired. These results could not be explained by expectations about the effects of influenza or by changes in mood, and they confirm

findings at the Medical Research Council Common Cold Unit with experimentally induced illnesses.¹ Influenza B impaired performance of the simple reaction time task by about 20-40%, which is comparable to the 5-10% deterioration seen with alcohol consumption⁴ or work at night.⁵ The subjects with influenza B were not so ill that they were confined to bed, so influenza could possibly endanger people's safety at work.

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Correction

Cancer in Cumbria and in the vicinity of the Sellafield nuclear installation, 1963-90

An authors' error occurred in this paper by G J Draper *et al* (9 January, pp 89-94). One case of non-Hodgkin lymphoma was omitted from table III. The child was born in 1952 and had cancer diagnosed in 1955 aged 2 (case 14 in the Black report). This omission did not affect the study's results as the case was diagnosed before the period for which ascertainment is believed to be complete and on which the analyses in the paper were based.

A PAPER THAT INFLUENCED ME

Cot death and sleeping position

I suspect that for many doctors the distinction between clinical practice and private life is blurred. Attitudes and opinions formed through work inevitably colour our own lifestyles. Often advice given to patients will also be offered to friends and relatives. As a pathologist I do not treat patients, but I often find myself being called on for advice.

When I started in histopathology in 1985, at the age of 28, many of my contemporaries were beginning to produce babies. Cot death became a major topic of conversation. Anxious parents and parents to be were grateful for my opinions on how they could reduce any risk. In their eyes I was an expert; obviously, I was nothing of the sort.

In my early days in pathology I came across a paper in the *Lancet* on cot death in Hong Kong.¹ I think the only reason I paid it any particular attention was that my wife was born in Hong Kong. One point in the paper stuck in my mind: babies in Hong Kong are traditionally placed supine. The author suggested that this may have some bearing on Hong Kong's low cot death rate. The idea rang true. Even as a student I thought there was something unnatural about babies sleeping prone, as was accepted practice in Britain at that time. Thereafter, I passed on this information whenever cot death was discussed.

Strangely, my suggestion that infants be better placed supine was not well received. Many medical friends said that I was wrong; they had never heard any such evidence.

Non-medical parents said that they had been told by the hospital to lay the baby on its front, so it must be right. A woman down the road had four children, all of whom had slept prone: they were all alive, so it must be safe.

When our son was born in 1988 our request that he not be placed on his front was greeted with raised eyebrows. We were inviting future hip problems and risking inhalation of vomit. But being medical parents no one argued too much. When our daughter was born in 1990 we were regarded as experienced parents, so we were left to do things our own way. We were still thought misguided, but beyond redemption. None the less, our children survived and are developing normally.

But what a contrast to attitudes now: a fall in cot death figures, associated with a high profile campaign advising parents to place babies supine; papers in the *BMJ* dealing with the relation between cot death and sleeping position. I don't say that the paper I read in 1985 necessarily affected the survival of my own children. Probably they would have been fine anyway. But, who knows?—M D HARRIS is a consultant histopathologist in Huntingdon

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We welcome contributions to fillers up to 600 words: *A patient who changed my practice; A paper that changed my practice; A memorable patient; The message I would most like to leave behind, or similar topics.*