

positive lod with haptoglobin in our study and the negative lod found by Hodge *et al* was claimed by those authors to result from our failure to apply an age correction. Hodge *et al* make no such claim. They offer two explanations for the discrepancy (p. 252). The first is the possibility that HD may be caused by abnormal genes at more than one genetic locus. The second possibility is simply chance variation. As there are no firm data currently available to support the first possibility, I feel chance variation is the more likely. As with other statistical procedures, when a large number of independent linkage tests are simultaneously undertaken, some are expected to give a positive result by chance alone.

Conclusions concerning the exact linkage relations of the HD gene will have to await the results of further family studies or the development of a technique for detecting the abnormal gene product itself.

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PSYCHOLOGICAL PROBLEMS OF ACQUIRED DEAFNESS

DEAR SIR,

In his article entitled 'Some Psychological Problems of Acquired Deafness' (*Journal*, May 1982, **140**, 453-56), John Stevens described an important issue in geriatric medicine. Given the prevalence of sensory deficits in old age, and existing evidence of an association between mental health and sensory function, the psychological and social implications of acquired hearing loss do warrant further investigation. There are unfortunate flaws in the research Stevens described, however, and his conclusions reflect a certain naiveté.

While the methodology for assessing hearing handicap, and for evaluating benefits of aural rehabilitation, is in an early stage of development, both the characteristics and significance of hearing loss have been more precisely defined than Stevens' work suggests (Katz, 1978; Alpiner, 1978; Noble, 1978). Moreover, development of a measure of hearing handicap requires greater attention to the psycho-

metric properties of the instrument than reported by Stevens.

With regard to Stevens' attempt at evaluation of the effect of hearing aid use on "handicap scores", his experimental design was clearly inadequate to this test. Comparability of his groups was questionable from the outset, as there is reason to suspect that only more successful hearing aid candidates would "adjust" to use of aids and continue wearing them for six months. From the data presented in Table I, Stevens' Groups 1 and 2 differed not only with respect to treatment (with vs. without hearing aid) but also on the factors age and degree of hearing deficit, although a discrepancy between the text and labelling of Table I obscures the direction of these differences. As the variables age, hearing deficit and group were confounded both experimentally and in the data analysis, Stevens' conclusion that "each of these factors influenced the handicap score independently" was not warranted. In fact, previous research indicates there are significant interactions between these and related variables, with the result that consideration of multiple factors is necessary in the clinical assessment of hearing impairment (Noble, 1978; Giolas, 1982).

Criticism of the quality of Stevens' research does not diminish the importance of his topic. The work Stevens cited as suggesting the aetiological significance of hearing loss in paraphrenia (Cooper, 1976) was based on evidence that a significant proportion of patients with diagnoses of paraphrenia or paranoid psychosis have severe hearing impairment (Cooper *et al*, 1974). Supporting evidence for this aetiological role was recently provided by a demonstration that hypnotic suggestion of hearing loss can induce experimental paranoia (Zimbardo, 1981), and a case study in which improved hearing function (i.e. benefit from hearing aid) was followed by a dramatic reduction in paraphrenic symptoms (Eastwood *et al*, 1981).

Investigation for sensory deficit is preliminary to mental state examination of the elderly, as hearing loss has been shown to affect cognitive examination results (Ohta *et al*, 1981) and may well affect the reliability of responses throughout the interview. Conversely, clinical research in the area of compliance with recommendations for hearing aids indicates psychological state and social context may be critical factors in determining outcome of aural rehabilitation programmes (Alberti, 1977).

Results to date support the need for further study of these inter-relationships, and the application of findings in the assessment and treatment of geriatric populations. Investigations are most apt to advance knowledge in this area, and to result in practicable recommendations, if conducted jointly by speci-

alists in the fields of audiological assessment and mental health. Such a project is currently under way at this centre.

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ANOREXIA NERVOSA, FOLLOWING TERMINATION OF PREGNANCY

DEAR SIR,

We would like to report a case of anorexia nervosa following termination of pregnancy. Such a syndrome has not been described previously in the literature.

The lady was a 38-year-old nurse in her second marriage. She had three children and her husband had undergone vasectomy 8 years before. The pregnancy was recognized in its tenth week. Two days later, she underwent termination of pregnancy and bilateral tubal ligation.

Three months later, she was referred to a psychiatrist with depression, severe guilt feelings, loss of appetite, loss of weight, (from 62–50 kg), loss of libido, amenorrhoea and early morning waking. She was admitted to hospital and prescribed clomipramine 100 mgs at night. During psychotherapy, her guilt feelings were explored and these centred around the termination. At this stage, she also expressed hostility towards her husband, who had insisted upon this procedure. It was in this setting that suicidal ideation became more prominent and a course of four electro-

convulsive treatments (ECT) were given. Following this, her mood became less depressed and her guilt feelings disappeared.

However, she continued to lose weight. It was at this stage one of the nurses discovered her taking 5 cascara tablets. Further enquiry revealed that she had regularly purged herself, taking up to 9 cascara tablets a day. She occasionally binged, when she would stuff herself full of food. This was followed by induced vomiting. Her diet was otherwise very strict and she had a rigid hierarchy of foodstuffs that she could eat based upon their calorific value. She also exhibited distortion of the body image, feeling disproportionately fat, particularly over her shoulders and buttocks, and expressed the desire to reach the weight of 38 kg.

Eighteen years ago, at the time of her first pregnancy, she experienced bulimia and her weight rose to 96 kg. Her score on the Eating Attitudes Test (Garner *et al*, 1979) was well within the range of anorexia nervosa. Treatment was carried out with simple behavioural techniques and chlorpromazine and her weight rose to 50 kg (her admission weight). She is now back in full employment, and anxious to be free of medical involvement, even though she still vomits and purges herself to maintain her weight at 45 kg.

There are three features in this case that deserve attention. Firstly, using Feighner's criteria (1972) she would be too old to be included in his diagnostic category for anorexia nervosa.

Secondly, Crisp (1980), has pointed out that when this illness presents in later life, careful enquiry of the past should be made. In this case, it revealed an episode of bulimia and disproportionate weight gain at the time of her first pregnancy, and frequent dieting since then. Thirdly, there is an overlap in the biological constellation of symptoms found in depression and anorexia nervosa. In such cases, patients may initially present with what appears to be a depressed state, (as indeed happened in our case), before the true diagnosis is reached.

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