

'Fright of mothers' and the aetiology of deaf-dumbness

Sir – In 1851 Ireland was possibly the first country ever to conduct a nationwide census on The Status Of Disease as an adjunct to its more routine census. The results collected and the approaches and methods used yield a fascinating insight into both society and scientific endeavour in mid-19th century Ireland. One topic that by today's standards seems to be given a disproportionate focus is that of deafness and muteism (a separate form was included in the form specifically to focus on this issue). The level of detail collected and reported on these topics is astounding. Readers may be interested in the following record of the reported causes of deafness and muteism which sits alongside carefully constructed tables showing genetic links of these conditions in kinship networks and other tables detailing diseases and accidents that have resulted in these conditions: "The causes of muteism may be divided into the proximate and the remote; the former appertaining to the individual affected-the latter chiefly derived through the parentage. Three special cases seem to influence the production and propagation of muteism: fright experienced by the mother while pregnant; too close consanguinity, or the intermarriage of near relatives; and family peculiarity, and hereditary taint."

Among the popular opinions with respect to the causes of deaf-dumbness, foremost is that of fright experienced by the mother, of which 127 instances have been recorded; but the analysis of these cases has thrown little light on the subject. In order to form some idea of the causes of fright, additional inquiry was made in a sufficient number of cases, but no result worthy of a detailed publication was obtained. The same circumstances were related as those which we hear of in cases of hare-lip, club-foot, idiocy, or other congenital malformations or arrests of development – generally some shock or strong mental emotion, such as being frightened by a deaf and dumb person, hearing bad news, experiencing some sudden reverse of fortune, seeing a hare or rabbit, or being strongly impressed with some superstitious dread.

As an instance of the latter, may be mentioned a case in which a curse is said to have been pronounced upon a family in the county of Leitrim upwards of a century ago, since when several members of it have been born deaf and dumb. Many cases were reported as having been caused by the houses in which pregnant females resided having taken fire; being robbed by a deaf and dumb person, or attacked by marauders. The sudden deaths of relatives; frights received from animals, such as being pursued by a bull, chased by a mad dog, startled on seeing a bear; as also falls and other accidents, and a belief in supernatural appearances, such as fairies, or being overlooked by a *bad eye* have all been recorded among the causes of fright to the mother, inducing muteism in the offspring.¹

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References

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Electroconvulsive therapy and cognitive function

Sir – Electroconvulsive therapy (ECT) remains the most effective treatment for seriously depressed patients,¹ although discussion regarding cognitive sequelae of ECT has been polarised for decades.² There is a significant gap between research and anecdotal evidence regarding the extent of cognitive sequelae after ECT, but this has never been adequately explained.³ The majority of studies have failed to find an association between clinical outcome and cognitive dysfunction following ECT and it is commonly believed that patients do not improve because of confusion or amnesia following ECT.^{1,3}

A prospective survey was carried out to detect any decrement in cognitive function, as measured by the mini-mental-state examination (MMSE),⁴ in patients undergoing ECT in the psychiatric department of St. James's University Hospital, Leeds, for depressive illness. Ethical approval was successfully obtained. Demographic factors, such as age and sex and treatment factors, such as current medication, dose of electricity and seizure time were analysed to determine any correlation with cognitive impairment, if it occurred.

Twenty patients were investigated encompassing 60 treatments. T-tests revealed no clinically or statistically significant differences between pre and post ECT MMSE scores for each treatment. One way analysis of variance (ANOVA) and multiple regression analysis did not predict any factors that could influence a change in MMSE scores at the 5% level.

There was no objective deterioration in memory function and my findings support the current trend in research. Statistically significant results, such as a decreased use of unilateral electrode placement ($p < 0.05$), did not have any bearing on cognitive outcome and so it was not seen as clinically significant. The limitations of the survey reflect its lack of statistical power and limited application of cognitive testing. A carefully matched control group was deemed unobtainable.

It is commonly accepted that cognitive function improves with mood. Anecdotally some patients felt indifferent or even worse in terms of mood after treatment, yet their cognitive function was preserved or even improved. Hypothetically if cognitive dysfunction did occur, a *trade-off* situation may arise. Some patients may be willing to suffer a slight deterioration in memory even though their mood and subsequent life improves, although one would wish for both modalities to improve.

It is generally agreed that objective cognitive function does not deteriorate after ECT in the vast majority of patients. It is noted that static or improved mood after ECT enhances cognitive function. If any dysfunction does occur monitoring procedures should be instituted and consent for the treatment may need to be updated prior to each subsequent treatment session. Future research needs to be more concrete in terms of study design and should focus on the nature of the memory deficit, the neural systems implicated in amnesic effects and the effect of ECT on other functions than memory.

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