Differential Survival Associated with APOE Genotype in Early Cognitive Impairment.

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As part of an investigation of dementia epidemiology (the MRC Cognitive Function and Ageing Study), APOE genotype was studied amongst 64 unselected subjects with recent onset of cognitive impairment identified prospectively over a two year period. Fifty eight subjects who had remained cognitively intact over the same period were also available for study. APOE genotype was ascertained by means of standard PCR techniques from specimens of buccal epithelial cells obtained by an oral rinse procedure. For the purpose of analysis, subjects were grouped on the basis of MMSE scores as cognitively intact (>25), borderline impaired (19-24) and definitely impaired (<19). The mean age of the intact (77) and impaired groups (82) were significantly different (p<0.01). The mean age of those subjects with the ε4ε4 genotype (77 years) was significantly lower (p<0.05) than the mean age of subjects without the ε4 allele (80 years). The distribution of the APOE genotypes is shown in the table:

<table>
<thead>
<tr>
<th></th>
<th>ε2ε2</th>
<th>ε2ε3</th>
<th>ε2ε4</th>
<th>ε3ε3</th>
<th>ε3ε4</th>
<th>ε4ε4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intact (n=58)</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>39</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Borderline impaired (n=47)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>28</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Definitely impaired (n=17)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>14</td>
<td>27</td>
<td>0</td>
</tr>
</tbody>
</table>

The frequency of the ε4 allele amongst those subjects definitely impaired was lower than expected. The lower mean age of those subjects possessing at least one ε4 allele may be due to increased mortality with consequent depletion of the ε4 genotypes amongst older individuals.

Malnutrition in Acute Medical Elderly Inpatients: Role of Depression

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Malnutrition in elderly inpatients is well documented, despite this it remains undetected in a high proportion (McWhirter and Pennington. 1994, BMJ 308, 945-8).

Depression has been recorded in up to 30% elderly hospital patients, and reported as a cause of poor nutrient intake in elderly (Kerstetter et al. 1992, J. Amer. Diet. Assoc. 92, 1109-16). We sought to document the prevalence of malnutrition and its relationship to depression in elderly acute medical inpatients.

PATIENTS. Consecutive elderly admitted to an acute unit, excluding those on enteral/parenteral nutrition, severely ill, dysphagic, or confused, and ethnic minorities in view of possible differing criteria for depression.

METHODS. Malnutrition was diagnosed on presence of 3 or more criteria - body mass index, triceps skinfold, mean arm circumference, mean arm muscle circumference <25% normal, 10% weight loss in last 3 months, serum albumin <35g/l, blood lymphocyte count <1000/mm3.

Probable depression was diagnosed on a BASDEC score of 7 or more (Adshed et al. 1992, BMJ. 305, 397.), validated in a proportion by blinded psychiatric interview.

RESULTS. 136 patients were studied, 47 male, 89 female, mean age 80.7 years (range 65-97). 31/136 (23%) were malnourished (including recent life events and female gender) were much lower. Handicap explained most of the depression associated with individual impairments and disabilities. Adjusting for handicap abolished or weakened the associations between depression and social support, income, older age, and living alone.

Conclusions: This is the strongest association yet reported between a general health status measure and depression. Even given some uncertainty about the direction of causality, it seems likely that handicap is of central importance to the origin of late-life depression. Handicap may be more amenable to intervention than either impairment or disability.