Protein energy supplementation of usual hospital diet did not improve outcomes in inpatients with recent stroke


Does routine oral protein energy supplementation of a usual hospital diet improve outcomes in patients admitted with recent stroke?

Methods

- **Design:** randomised controlled trial (FOOD [Feed Or Ordinary Diet] trials).
- **Allocation:** concealed.
- **Blinding:** blinded (outcome assessors).
- **Follow up period:** median 6.7 months.
- **Setting:** 125 hospitals in 15 countries.
- **Patients:** 4023 patients (mean age 71 y, 53% men, 8% undernourished) who were admitted with a recent stroke (first or recurrent stroke < 7 d before admission) and whose clinicians were uncertain about whether to use oral nutritional supplements after they had passed the swallow screen. Patients with subarachnoid haemorrhage were excluded. Patients could be enrolled within the first 30 days of admission or within 30 days of stroke occurring in hospital.
- **Intervention:** usual hospital diet plus oral protein energy supplements (equivalent to 360 ml at 6.27 kJ/ml and 62.5 g/l in protein every day) (n = 2016) or usual hospital diet alone (n = 2007) until discharge.
- **Outcomes:** a composite end point of all cause mortality or poor outcome (defined as modified Rankin scale [MRS] scores 3-5; 0 = no symptoms to 5 = requiring constant attention); and all cause mortality.
- **Patient follow up:** 99.7% (intention to treat analysis).

Main Results

The groups did not differ for rates of the composite outcome or all cause mortality (table).

<table>
<thead>
<tr>
<th>Outcomes at median 6.7 months</th>
<th>Supplements</th>
<th>No supplements</th>
<th>RRRI (95% CI)</th>
<th>NNH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite endpoint</td>
<td>59%</td>
<td>58%</td>
<td>1.5% (-3.6 to 6.9)</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RRR (CI)</td>
<td>NNT</td>
</tr>
<tr>
<td>All cause mortality</td>
<td>12%</td>
<td>13%</td>
<td>5.2% (-11.8 to 19.6)</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

*Composite endpoint = all cause mortality or poor outcome defined as modified Rankin scale scores 3-5 (range 0-5). Abbreviations defined in glossary; RRRI, RRR, NNH, NNT and CI calculated from data in article.

Conclusion

Routine oral protein energy supplementation of a usual hospital diet did not improve outcomes in patients admitted with recent stroke. A modified version of this abstract appears in ACP Journal Club.