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## **PROCEEDINGS OF THE NUTRITION SOCIETY**

### **ABSTRACTS OF COMMUNICATIONS**

*A joint meeting of The Clinical Nutrition and Metabolism Group of The Nutrition Society, and the British Association for Parenteral and Enteral Nutrition was held at Blackpool on 3–5 December 1996, when the following paper was presented. This abstract arrived too late for inclusion in Volume 56 no.2.*

*All abstracts are prepared as camera-ready material by the authors.*

**Are malnutrition and depression correlated in acutely ill elderly patients?** By E.B. MEDICI<sup>1</sup>, D. McCREA<sup>1</sup>, B. KAUFMAN<sup>1</sup> and G. GRIMBLE<sup>2</sup>, <sup>1</sup>*Elderly Care Department, Central Middlesex Hospital NHS Trust, Park Royal, London NW10 7NS.* <sup>2</sup>*Roehampton Institute London, Whitelands College, West Hill, London SW15 3SN*

The high prevalence of malnutrition in the hospitalized elderly has been well documented with a prevalence of 17-65% (Morley & Silver, 1995; Sullivan & Walls, 1995). Depression has been quoted as a causative factor for weight loss in this population (Thompson & Morris, 1991), prevalence of depression in the elderly is quoted at about 20% (McCrea *et al.* 1994). The present study was undertaken to investigate the relationship between malnutrition and depression in an elderly hospitalized population.

Exclusion criteria were cognitive impairment, age under 65 years, ethnic minorities, severe or terminal illness, dysphagia and receipt of enteral or parenteral nutrition. Ninety-eight out of 400 patients screened were entered into the study, forty males and fifty-eight females with a mean age of 80.4 (range 65-97) years.

Depression was assessed using the brief assessment schedule depression cards (BASDEC) administered by two physicians (DM,BK). A score of seven or greater is an indicator of probable depression (Adshad *et al.* 1992). To further validate depression results, patients were randomly assessed by psychiatrists blinded to the BASDEC results.

Nutritional assessment was by percentage weight loss, BMI, mid-arm circumference (MAC), triceps skinfold thickness (TST), mid-arm muscle circumference (MAMC), serum albumin and total lymphocyte count. Patients were identified as malnourished if three or more of the measurements were below the normal range (anthropometry below the 25th percentile, weight loss of 10% or more, serum albumin below 35 g/l, total lymphocyte count (TL count) less than  $1.0 \times 10^9/l$ ).

Twenty-five (25%) patients were identified as malnourished, and twenty (20.5%) patients were found to have probable depression. Psychiatric interview confirmed this in thirty-one out of thirty-five (85.7%). However, only four (20%) depressed patients were malnourished, a non-significant relationship confirmed using Yate's Corrected Chi<sup>2</sup> test (Chi<sup>2</sup> 0.12,  $P < 0.9$ ). The Table shows the difference in nutritional assessment between the two groups.

	Depressed patients (n 20)			Non-depressed patients (n 78)		
	n	Mean	SEM	n	Mean	SEM
Weight loss (%)	11	8.9	3.00	49	5.0	1.13
BMI (kg/m <sup>2</sup> )	20	24.5	1.52	78	24.2	0.63
MAC (cm)	20	25.4	1.00	78	25.6	0.53
TST (mm)	20	14.1	1.95	78	14.6	1.01
MAMC (cm)	20	21.0	0.56	78	21.0	0.31
Albumin (g/l)	17	35.8	1.36	67	36.5	0.59
TL count $\times 10^9/l$	16	1.59**	0.13	71	1.23	0.06

\*\* Mean value was significantly different from that for the non-depressed group,  $P < 0.011$ . Yate's Corrected Chi<sup>2</sup> = 3.774, NS.

We conclude that our data show no correlation between malnutrition and depression in the elderly. In addition, total lymphocyte count was found to be of little benefit when screening for nutritional status in this population. It was interesting to find a significantly higher TL count in the depressed patients and this will need further investigation.

- Adshad, F., Cody, D.D. & Pitt, B. (1992). *British Journal of Medicine* **305**, 397.  
 McCrea, D., Arnold, E., Marchevsky, D. & Kaufman B.M. (1994). *Age and Ageing* **23**, 465-467.  
 Morley, J.E. & Silver, A.J. (1995). *Annals of Internal Medicine* **123**, 850-859.  
 Sullivan, D.J. & Walls, R.C. (1995). *Journal of the American College of Nutrition* **14**, 29-36.  
 Thompson, M.P. & Morris L.K. (1991). *American Geriatric Society* **39**, 497-500.