EFFECT OF ENTERAL NUTRITION AND
MEGESTROL ACETATE IN MALNOURISHED
CANCER PATIENTS: A REAL-WORLD STUDY

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Introduction

The optimal treatment of cancer-related malnutrition remains unknown. A real-world study was performed to compare the effectiveness of enteral nutrition (EN) and megestrol acetate (MA) with MA alone in the treatment of cancer-related malnutrition.

Methods

101 patients were observed during June 2016 to August 2017, including Arm 1 (n = 53, 52.5%) using MA (160 mg/d), and Arm 2 (n = 48, 47.5%) using MA (160 mg/d) combined with EN (Enteral nutrition powder, 55.8 g/t.i.d).Treatment duration was 12 weeks. All patients could receive anticancer therapy. The primary endpoints were improvements in body mass index (BMI) and Eastern Cooperative Oncology Group (ECOG) score. Secondary endpoints were assessed by appetite, mid-upper arm circumference (MAC), serum pre-albumin levels, and serum albumin levels.

Study flowchart

Baseline characteristics of patients

Clinicopathological parameters	Arm 1 No. (%)	Arm 2 No. (%)	P value
Gender			0.159
Male	39 (73.6)	29 (60.4)	
Female	14 (26.4)	19 (39.6)	
Age			0.072
≥ 60	32 (60.4)	37 (77.1)	
< 60	21 (39.6)	11 (22.9)	
Weight	56.6 ± 9.6	55.0 ± 10.8	0.431
Height	1.66 ± 0.08	1.66 ± 0.08	0.744
BMI	20.1 ± 3.2	19.7 ± 3.4	0.572
Tumor Site			0.893
Digestive system	28 (52.8)	26 (54.2)	
Non Digestive system	25 (47.2)	22 (45.8)	
Stage			0.126
III	10 (18.9)	4 (8.3)	
IV	43 (81.1)	44 (91.7)	
ECOG			0.662
< 2	31 (58.5)	26 (54.2)	
≥ 2	22 (41.5)	22 (45.8)	
ALB			0.443
< 35	15 (28.3)	17 (35.4)	
≥ 35	38 (71.7)	31 (64.6)	
Concomitant Therapy			0.575
Chemotherapy	24 (45.3)	18 (37.5)	
Radiotherapy	0 (0)	1 (2.1)	
Target therapy	4 (7.5)	5 (10.4)	
Endocrine therapy	3 (5.7)	1 (2.1)	
Palliative therapy	21 (39.6)	23 (47.9)	
Surgery	1 (1.9)	0 (0)	

Changes in efficacy endpoints

Endpoints	Arm 1 No. (%)	Arm 2 No. (%)	P value
Appetite			0.005
Increased	29 (54.7)	39 (81.3)	
Decreased	24 (45.3)	9 (18.7)	
BMI			0.202
Increased	36 (67.9)	38 (79.2)	
Decreased	17 (32.1)	10 (20.8)	
MAC			0.126
Increased	36 (67.9)	39 (81.3)	
Decreased	17 (32.1)	9 (18.7)	
Pre-ALB			0.011
Increased	23 (43.4)	33 (68.8)	
Decreased	30 (56.6)	15 (31.2)	
ALB			0.003
Increased	21 (39.6)	33 (68.8)	
Decreased	32 (60.4)	15 (31.2)	
ECOG			0.001
Increased	25 (47.2)	38 (79.2)	
Decreased	28 (52.8)	10 (20.8)	

Results

Baseline levels were comparable between Arm 1 and Arm 2 patients. Primary (ECOG, P = 0.001) and secondary (appetite, P = 0.005; serum pre-albumin, P = 0.011; and serum albumin, P = 0.003) endpoints improved significantly after treatment in Arm 2. Toxicity was negligible and comparable between Arm 1 and Arm 2.

Toxic effects

Toxicity	Arm 1 (No.)	Arm 2 (No.)	P value
Nausea			n.s.
Grade 1/2	5	3	
Grade 3/4	1	1	
Vomit			n.s.
Grade 1/2	1	1	
Grade 3/4	0	0	
Diarrhea			n.s.
Grade 1/2	1	2	
Grade 3/4	0	0	
Constipation			n.s.
Grade 1/2	0	1	
Grade 3/4	0	0	

Conclusions

MA combined with EN may be a safe, convenient, and effective treatment option for cancer-related malnutrition.

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