

PREVENTION OF NEUROTOXICITY WITH DOCOSAHEXAENOIC ACID AND ALPHA LIPOIC ACID IN PATIENTS WITH MULTIPLE MYELOMA: PRELIMINARY DATA

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Objective:

Neurotoxicity is a common complication of chemotherapy (CT) that is usually dose-dependent and can induce marked disability that negatively affect the quality of life in patients with Multiple Myeloma (MM).

Using Bortezomid, a first line CT for MM, grade 1 and 2 neurotoxicity can occur in 75% and 33 % of patients relapse or are newly diagnosed, while grades 3 and 4 neurotoxicity are present in 30 % of patients with recurrent disease and in 18 % of newly diagnosed patients. Delay or prevention of the onset of toxicity could be very important in these patients.

Literature data indicate that the association of docosahexaenoic acid (DHA) and alpha lipoic acid (ALA) can be useful in reducing inflammation and promoting the formation of new axons and intersynaptic connections thus protecting from or slowing down CT neurotoxicity.

The purpose of this study is to evaluate 33 patients with MM, for whom Bortezomib has been indicated as a first line CT, whether it is possible to obtain the results cited in the literature, using DHA and ALA.

Methods:

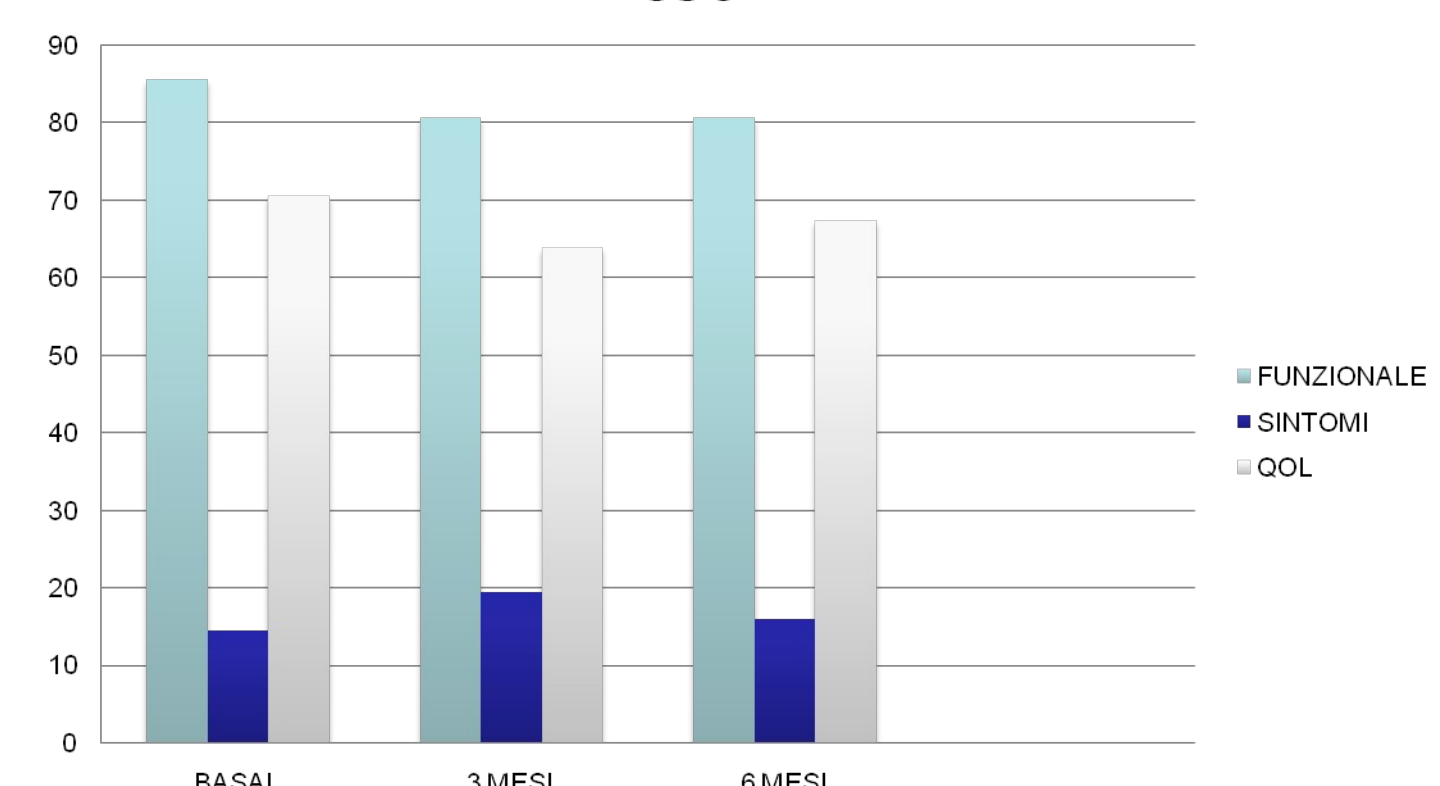
At first visit and at finally follow-up (6 months):

- neurological visit
- neuropsychological evaluation utilizing:
 - ◇auto-evaluation of pain (Visual Analog Scale – VAS)
 - ◇EORTC QLQ-C30 scale for the evaluation of functioning status, symptoms and quality of life of the oncological patient
 - ◇EORTC QLQ-CIPN20 scale for the evaluation of the chemotherapy induced peripheral neuropathy
 - ◇scale of Daily Life Activities (ADL/IADL)
- Electroneurography (ENG)

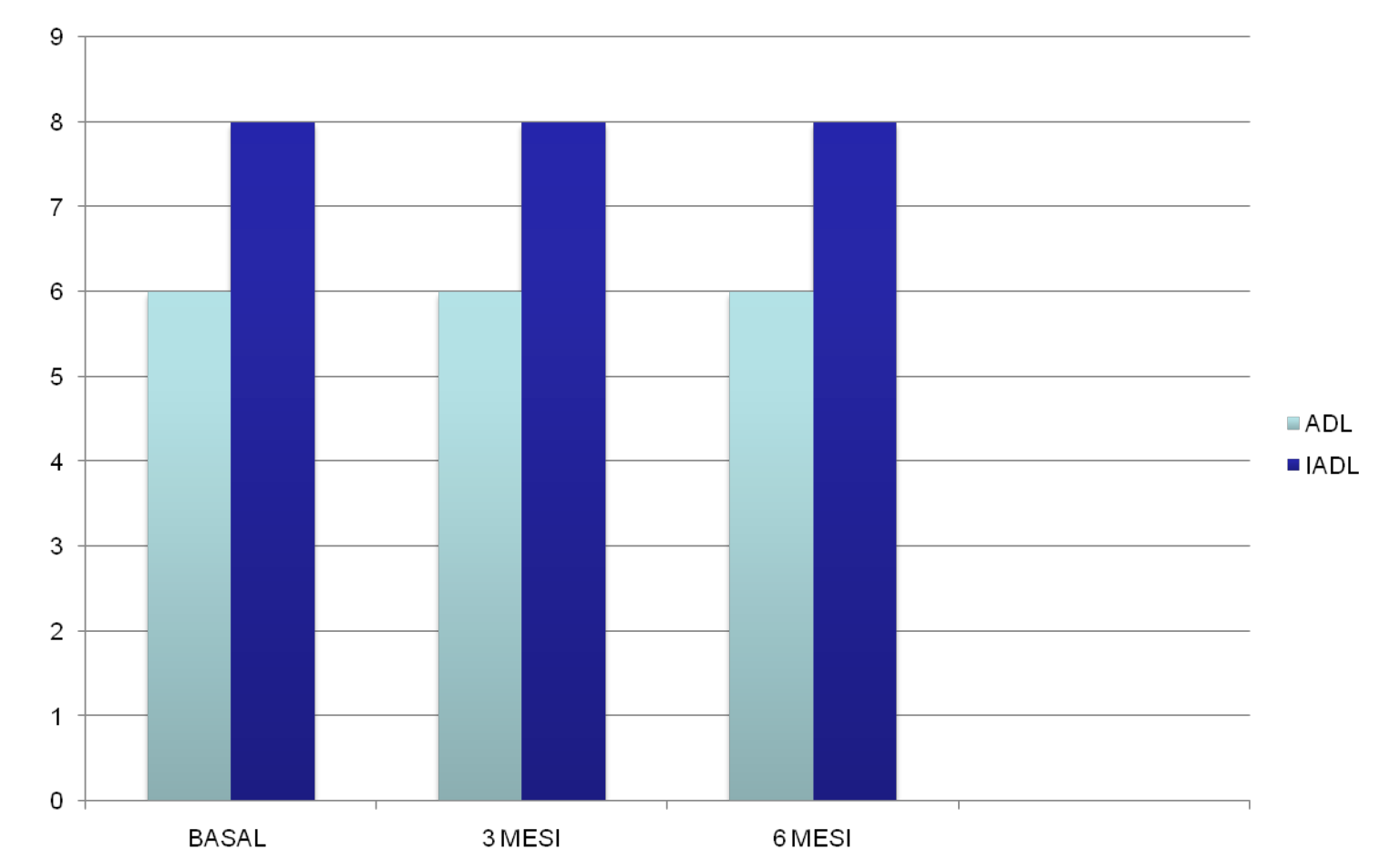
At 3 Months:

- neurological visit
- neuropsychological evaluation
- Introduction of DHA 400 mg, ALA 600 mg, Vit C 60 mg and Vit E 10 mg

SCALA DI QUALITA' DI VITA EORTC QLQ-C30



ACTIVITIES OF DAILY LIFE



Results:

To date we have recruited 19 adult patients (F 9, M 10; mean age 64.5) with MM, followed for at least one month.

All patients were in CT with Bortezomib, according haematological treatment schedule of 1.3mg/mq.

Three patients dropped out.

At the last follow-up available (minimum one month; maximum 6 months, mean 4.2 months):

- ✓ neurological examination remains stable
- ✓ **pain was not present (VAS=0)**
- ✓ **ADL/IADL scales remain stable (ADL 6/6; IADL 8/8)**
- ✓ EORTC QLQ-C30: At 3 months: **small worsening in functional and symptoms scale scores tumor-related**
At 6 months: **functional and symptom scale scores were stable**
- ✓ EORTC QLQ-CIPN20 and evaluation of ENG are ongoing.

Discussion:

Our preliminary data suggest that early introduction of a DHA and ALA in patients with MM, in therapy with Bortezomib, has maintained neurological stability and has allowed patients to conduct normal activities of daily living.

The cooperation between hematologist and neurologists could be helpful for the maintenance of a good quality of life and neurological stability in patients with MM, being treated with CT, who are potentially neurotoxic.

References:

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