

## Nutritional status and quality of life in patients with acute leukemia prior to and after induction chemotherapy in three hospitals in Tehran, Iran: a prospective study

### ABSTRACT

**BACKGROUND:** The primary objective of the present study was to assess changes in the nutritional status and quality of life in acute leukaemia patients, aged  $\geq 15$  years, who had undergone induction chemotherapy. **METHODS:** A preliminary and post-induction chemotherapy assessment of patients' nutritional status, quality of life, sociodemographic status and medical characteristics was conducted using the Patient Generated Subjective Global Assessment (PG-SGA) and the European Organization for Research and Treatment of Cancer quality of life (QOL-C30, version 3) questionnaires. The PG-SGA is a clinical nutrition assessment tool used to evaluate oncology patients. Patients with newly-diagnosed acute leukaemia, aged  $\geq 15$  years, at three hospitals in Tehran (from May 2009 to March 2010), were recruited for the present study. **RESULTS:** Sixty-three acute leukaemia patients [65% men and 35% women with a mean (SD) age of 33 (15.4) years] participated in the present study. A total of 19.4% were found to be malnourished prior to chemotherapy. After chemotherapy, 76.1% of patients were considered moderately malnourished, whereas 6.3% were severely malnourished. After induction chemotherapy, both the nutritional status and quality of life deteriorated in the majority of patients, as demonstrated by a paired t-test. **CONCLUSIONS:** A deteriorated nutritional status and quality of life was the result of the side effects posed by induction chemotherapy in the patients investigated in the present study. These findings highlight the need for an appropriate nutritional support programme to improve the nutritional status and quality of life in patients with leukaemia undergoing chemotherapy.

**Keyword:** Acute leukaemia; Induction chemotherapy; Nutritional status; Quality of life