Evaluation of patients‘ nutritional status

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Introduction

Malnutrition is an important negative prognostic factor for the quality of life as well as morbidity and mortality of haemodialysis patients. Therefore, our goal is an early detection of malnutrition and its prevention by education and implementation of dietary supplements to the patients. At the beginning of 2015, we implemented a nutritional assessment programme at our clinic using the Malnutrition Inflammation Score (MIS) protocol enabling standardized working practices and better transparency of actual nutritional status of all our patients.

Objectives

To establish the nutritional status of our patients, easier tracing and direct response to detected situation with the introduction of a MIS protocol.

Methods

Since 2015, we have been evaluating the nutritional status using a MIS (Malnutrition Inflammation Score) protocol. This protocol includes ten parameters: Body weight, food intake, gastrointestinal symptoms, physical performance, comorbidity, number of years on haemodialysis, fat tissue, signs of muscle weakness, BMI, serum albumin, and serum total iron-binding capacity. Each parameter was classified into four categories (from 0-3 points). Patients with an overall score of ≥-6 were classified into the risk group. We also perform monthly BCM (Body Composition Monitor) measurements in all patients with an emphasis on assessing their nutritional status. These data reveal the patient’s ratio of muscle and fat tissue and excess fluid.

Results

The observational period covers a two-year period and 305 patients (59.3% males) from five dialysis clinics with a mean age of 68 years.
Results showed a slight decline of the MIS in 2016 (5.59) as compared to 2015 (5.1). 40.69% of all patients had a MIS of ≥6. The average MIS in these patients was 8.44. The percentage of patients with MIS of ≥6 increased from 38.36 to 43% in 2016.

On average, 20% of patients of each clinic took oral supplements.

Associated diseases: Cardiovascular disease in 124 patients, Diabetes in 98 patients, Malignant diseases in 35 patients, Neurological disorders and dementia in 25 patients.

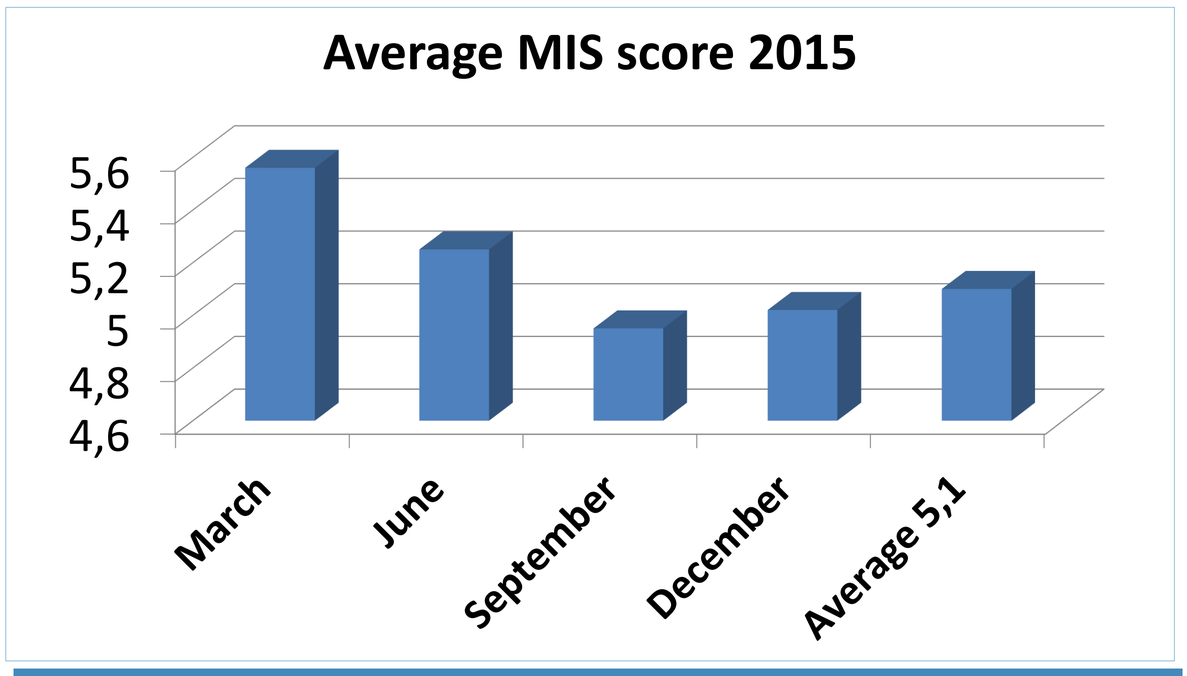

Figure 1: Avarage MIS score in 2015

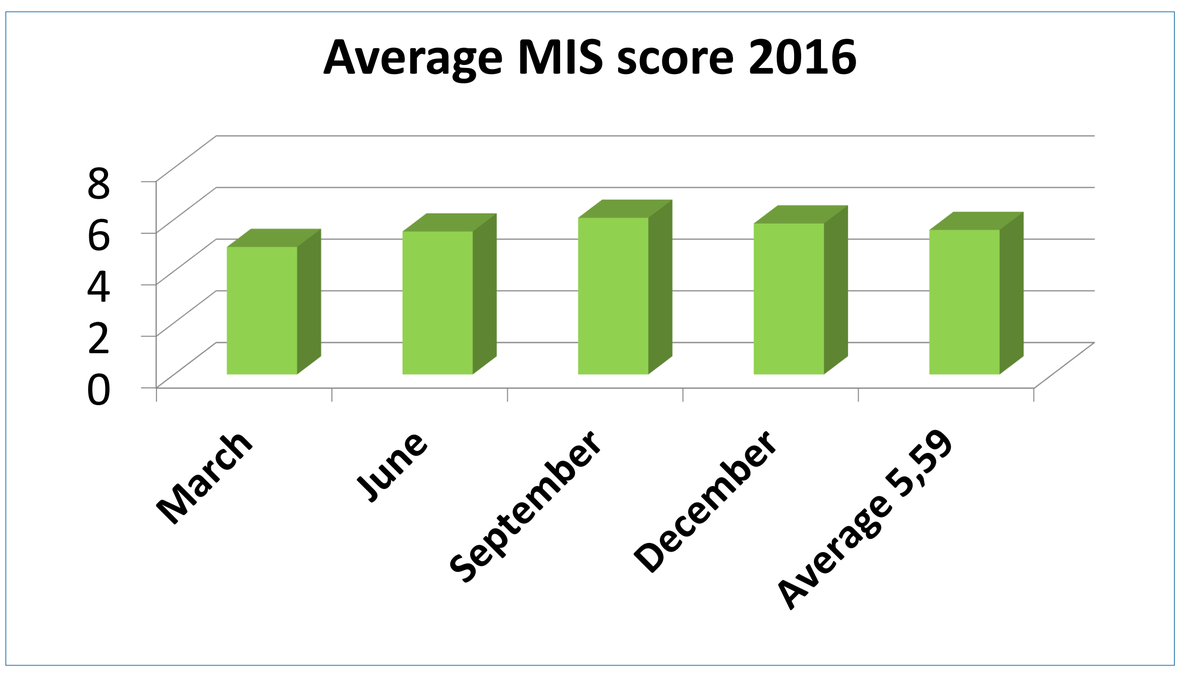

Figure 2: Avarage MIS score in 2016

Conclusion

Protein and energy malnutrition due to low intake of protein and energy, inflammatory process, catabolic processes, loss of nutrients in dialysate, metabolic acidosis, secondary hyperparathyroidism, on haemodialysis, poverty, depression and physical inactivity, can be detected early and timely treatment initiated.

A slight deterioration of the nutritional status in 2016 is related to the poor condition of patients in this year.

We still believe that careful monitoring of the patients’ nutritional status and timely treatment is helpful in improving patients outcome.

References

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