

Supportive Care for Malnutrition in childhood cancer



by

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Background and aim:

- **Malnutrition** is a common complication of children with cancer, which varies from 8% to 60%.



Background and aim...

A diminished nutritional status may be a **contributing factor** for:

- ❑ decreased immune function,
- ❑ delayed wound healing,
- ❑ disturbed drug metabolism influencing prognosis.



Background and aim...

- Children with cancer are particularly vulnerable to malnutrition, because they exhibit elevated substrate needs due to the disease and its treatment.



Background and aim...

- At the same time, children have increased requirements of nutrients to attain appropriate **growth** and **neurodevelopment**.



Background and aim...

- Furthermore, childhood cancer survivors are at a higher risk of developing health conditions such as **osteoporosis**, and **cardiovascular disease**.



Background and aim...

- Purpose of this paper is to review recent supportive care interventions dealing with malnutrition in childhood cancer.



Material and Methods

- The research was conducted by searching PubMed, Scopus, Cochrane, CINAHL, with no restrictions related to the kind of publication, in a time span that includes the last 5 years and 16 studies were included.



Results

According to recent studies, the primary objectives of nutritional interventions in pediatric oncology should be:

- ❑ the maintenance of body stores as close to the ideal as possible,
- ❑ minimization of wasting,
- ❑ promotion of appropriate growth development,
- ❑ providing a good quality of life



Results...

Nutrition strategies are indicated in all affected children, **beginning with the diagnosis of cancer** to prevent and/or restore **abnormalities in growth development before nutritional and general status** are **severely compromised**.



Results...

These should be integrated into cancer treatment protocols starting **directly after admission independent of the initial body weight** to establish the essential role of **adequate nutrition** in the mind of the child and parents.



Results...

The assessment of the nutritional status is indispensable to stratify the child into nutritional risk groups in view of actual nutritional condition and the extent of the disease, considering psychological and socioeconomic aspects as well as the prescribed multimodal procedures for each tumor type.

Conclusion

- Based on analyzed studies; nutrient status can be optimized through the use of **personalized dietary supplement protocols (PDSP)** that are based on **regular testing** of **blood-based biomarkers**.



Conclusion...

In addition the multidisciplinary management including **close communication and collaboration** between the child, family, and the medical team to determine together the **expectations for dietary support** as well as **to develop further objectives** are needed for optimizing nutritional status.



Thanks

