1052

FGF-21 IN INFLAMMATORY BOWEL DISEASES

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Fibroblast growth factor 21 (FGF-21) is an atypical member of the FGF family. It act as an endocrine hormone which affects energy balance. In humans FGF-21 was correlated with obesity. The relationship of FGF-21 and starvation in the course of inflammatory bowel diseases (IBD) is unknown. Therefore the FGF-21 concentrations in children with IBD (n=22) and obese children (n=17) were investigated. Subjects were in similar age (14±3 ys.). The mean BMI of obese children were 30±6 kg/m² whereas in IBD group 16±2,2 kg/m². The FGF-21 in IBD children were measured triple - in acute stage of the disease, during the treatment and in the remission. FGF-21 concentrations were determined in fasting serum samples using RIA. The highest FGF-21 concentrations (mean 0,7±0,16 ng/ml) were noted in acute stage of IBD. The results in samples taken during the treatment and in remission were similar (0,53±0,17 ng/ml, 0,48±0,09 ng/ml, respectively; p< 0,05 as compare to results determined in acute stage of disease). The mean concentration of FGF-21 in obese subject was 0,58±0,12 ng/ml; and this value also was significantly lower than observed in acute stage of IBD. The serum levels of FGF-21 in obese group and IBD children during remission correlate with BMI (r=50; p< 0,05). These results suggest that FGF-21 concentration reflect the imbalance in energy intake/expenditure, however the inflammation in IBD increase serum levels of this parameter. Therefore usefulness of FGF-21 as a marker of energy balance in acute stage of IBD and probably in other inflammatory disorders is limited.

1053

**NUTRI-MEDICINAL PLANTS USAGE IN THE
MANAGEMENT OF IMMUNO-COMPROMISED
AILMENTS IN UGANDA**

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Introduction: To regard food as medicine is part of cultural heritage. Today, more advanced scientific

research reveals that human health is directly connected to nutrition (Johns, 2003, Lentini *et al.*, 2007). FAO, (2003) observed that wild food plants have a potential in the mitigation of HIV/AIDS impact, especially among the rural poor. In Uganda, 80% of mothers use traditional medicine to provide health care for themselves and children (Kamatenesi *et al.*, 2005, Kamatenesi and Oryem-Origa 2006).

Objective of the study: This study inventoried nutritional medicinal plants and performed the nutritional analysis of some nutri-medicinal plants used in most parts of Uganda.

Methods: The methods used for field surveys were semi-structured interviews, discussions, health centre surveys, focused group discussions. The Laboratory research was conducted in the Department of Food Science and Technology, faculty of Agriculture, Makerere University, Uganda, using standard methods and following the standard operating procedures used in the laboratory for nutrient and mineral analysis.

Research results: The research findings revealed that vegetables such as *Amaranthus graecizans*, *Solanum nigrum*, *Cleome gynandra*, are rich in nutrients and micronutrients.

Conclusion and Recommendation: Plants used as food plants by local communities are potent in immune boosting and restoring appetite loss to pregnant women, children and other immuno-compromised patients. However, more studies on biosafety are needed in validating indigenous knowledge in nutritional plants. Thus, this paper will present the value of food plants that double as medicinal plants in health care delivery in Uganda.

Key words: Nutri-medicinal plants; immune boosting; nutritional analysis; Uganda.

1054

**ASSOCIATION BETWEEN MARKERS OF
BONE METABOLISM, IGF I AND LEPTIN IN
MALNURISHED INFANTS**

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The aim of our study was to detect the association between cytokines that are essential for bone