

## Protein energy wasting in a sample of Egyptian children on regular hemodialys: Relation to anorexigenic hormones

Ghada M. El-Kassas

National Research Centre, Egypt



### Abstract

**P**rotein energy wasting (PEW) and growth retardation are common problems in pediatric patients with chronic renal failure (CRF). Disturbances in anorexigenic/orexigenic hormonal balance may be key in the pathogenesis of PEW in CRF children.

**Aim:** In this study we investigated the association between serum unacylated ghrelin and obestatin (two hormones involved in energy balance) and the nutritional status in a group of Egyptian children with CRF on regular hemodialysis.

**Subjects & Methods:** This case control study was conducted on fifty CRF children on regular hemodialysis aged (7-15years) who recruited from Nephrology department, Pediatric Hospital, Ain Shams University. Forty age and sex matched healthy children were included as a controls. Full history taking, clinical examination and anthropometric measurements were done. Standard deviation score (SDS) for all measurements were calculated. BMI-SDS, waist-hip ratio (WHR), the percentage of fat mass (FM%) and fat-free mass (FFM%) were calculated. Hemoglobin level, serum urea, creatinine, glucose, cholesterol, triglyceride, HDL, ghrelin and obestatin were measured. Glomerular filtration rate (GFR), the homeostatic model assessment–insulin resistance (HOMA-IR) and LDL were calculated.

**Conclusion:** We concluded that measurement of uncollated ghrelin and/ or obestatin is fundamental in hemodialysed children, as both hormones are inversely related to renal function and can be used as an excellent biomarker of nutritional status in hemodialysed children.



### Biography:

Ghada M. El-Kassas completed her PhD at the age of 30 years from Ain Shams University. She published more than 18 papers in reputed journals and has been serving as an editorial board member of four journals.

### Speaker Publications:

1. “Human paraoxonase-1 activity and serum adipokines: Relation to childhood obesity”; Journal by Innovative Scientific Information & Services Network; V 16, 2019.
2. “An innovative effective nutritional therapy for vitamin d deficiency in children with celiac disease”; V 12, 2019.
3. “Endoglin: a novel predictor of vascular complications in type 1 diabetic children and adolescents”; V 12, 2017.

[29<sup>th</sup> International Conference on Pediatrics Health; Webinar- July 29, 2020.](#)

### Abstract Citation:

Ghada M. El-Kassas, Protein energy wasting in a sample of Egyptian children on regular hemodialys: Relation to anorexigenic hormones, Pediatrics Health 2020, 29<sup>th</sup> International Conference on Pediatrics Health; Webinar- July 29, 2020

(<https://health.pediatricsconferences.com/abstract/2020/protein-energy-wasting-in-a-sample-of-egyptian-children-on-regular-hemodialys-relation-to-anorexigenic-hormones>)