

**HORMONAL ADAPTATIONS IN MALNUTRITION
RELATED DIABETES MELLITUS (MRDM)**

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Adaptive changes in hormone levels have been studied in children and adults with chronic protein Energy Malnutrition (PEM). Outstanding findings include low insulin high hGH and low T₈. so far, study of hormones, other than insulin, has not been well documented in cases with malnutrition related diabetes (MRDM). Serum insulin, hGH, T₄ and T₃ has been estimated in 19 cases of MRDM (10 with protein deficient diabetes mellitus (PDDM) and 9 with fibro-calculous pancreatic diabetes (FCPD). LH and prolactin levels has been estimated in 8 and 5 patients respectively. Mean blood glucose was 241.1 ±62.9 mg/dl and 329.2±79.6 mg/dl at fasting and 454.6±67.1 mg/dl and 545.6 + 85.5 mg/dl at 2 hours following 75 gm of glucose. Serum insulin level, particularly in response to glucose were lower than normal in both groups more so in FCPD. Mean basal hGH was high (5 ng/ml) compared to normal controls and IDDM of similar age group reported in literature (4 ng/ml). There was no suppression of hGH following glucose load, instead there was rise in patients with PDDM (8.0 ng/ml) Level of other hypophyseal hormones were in the normal range. Both T₄ and T₃ were lower than normal, particularly, in PDDM. Thus both types of MRDM, more so PDDM have hormonal pattern a kin to non diabetic patients of PEM, which corroborates the possibility of malnutrition acting as a definite co-factor in the clinical expression of MRDM.