

## **Chronic Pituitary Dysfunction In Patients With Traumatic Brain Injury - Long Term Follow Up Required In Patients With Cognitive And Mood Disorders**

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### **Background:**

Traumatic brain injury is one of the most common causes of mortality in young adults, with significant long-term physical disability, behavioural and neuropsychological deficits. Pituitary dysfunction is unrecognised in most traumatic brain injuries.

### **Objective:**

Main aim of this study was to know the incidence of pituitary dysfunction due to traumatic brain injury and factors influencing the incidence and severity of dysfunction, to determine its prevalence in patients with cognitive and mood disorders after the injury.

### **Methods:**

We have done pituitary hormonal evaluation in 60 patients of traumatic brain injury who met the criteria, first-within 24 hours of admission and after 6 months of follow up.

### **Results:**

Anterior pituitary dysfunction was observed in 45% of patients of traumatic brain injury in acute phase, and deficiency persisted for 6 months. Gonadotropin deficiency was in 27%, most of the patients suffered with loss of libido and infertility. ACTH deficiency was observed in 32% in acute phase, glucocorticoid supplementation initiated in immediate post injury, and recovery was noted. TSH deficiency was noted in 17%, thyroid supplements given. Growth hormone deficiency found in 18%. Transient diabetes insipidus in 12%. Cognitive and behavioural abnormalities were in 18%.

### **Conclusion:**

Alterations in pituitary hormones may be observed post-injury in acute phase, Assessment of cortisol is vital in acute phase, as cortisol deficiency if detected, and treated ontime, can be life saving. Long term follow up is needed in patients with persistent cognitive and mood disorders following head injury. An adequate replacement therapy is paramount importance.