# HEMANGIOPERICYTOMA ASSOCIATED HYPOGLYCEMIA AND CONCOMITANT SECONDARY ADRENAL INSUFFICIENCY.

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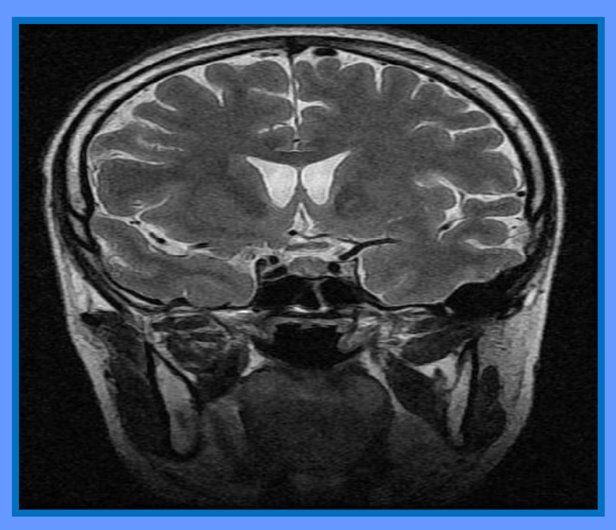
***Introduction:*** Hypoglycemia can be caused by several tumors, including islet and nonislet tumors. Nonislet cell tumor hypoglycemia occurs more commonly in patients with mesenchymal tumors and it is a rare but serious complication of malignancy. Hemangiopericytomas (HPC) are rare vascular tumors that may be associated with hypoglycemia. Hypoglycemia mostly caused by overproduction of insülin-like groth factor (IGF)-II and extensive tumor burden resulting in destruction of the liver or adrenal glands (1, 2). Here we report a case of HPC with multiple metastases, accompanying severe recurrent hypoglycemia due to the combination of different etiologies.

***Case Report:*** A 21 year-old woman was hospitalized due to loss of consciousness. The patient has been diagnosed as HPC by tibia mass biopsy one year ago. Tumor embolization was made several times. On admission, serum glucose was 42 mg/dl and serum insulin and C-peptide levels were suppressed. GH and cortisol response to hypoglycemia were found insufficient. Basal ACTH was below 5 pg/ml. IGF-II was 25 ng/ml (normal range 116-358 ng/ml) and IGF-II was 823 ng/ml (normal range 288-736 ng/ml). The IGF-II/IGF-I ratio was 32.9 (normal range <10), which indicates unregulated production of IGF-II. Thorax and abdomen CT imaging demonstrated multiple metastatic lesions in the liver, lung, abdominal cavity, pelvis and bone. MRI revealed a microadenoma in the pituitary gland. In this case, we suggest that hypoglycemia was associated with the combination of adrenal insufficiency secondary to deficient ACTH secretion, abnormal production of IGF-2 and diminished hepatic glucose production due to the liver metastases. Because of recurrent severe hypoglycemic attacks, a continuous glucose infusion was required to maintain normoglycemia. Prednisolone 40 mg/day was started and a dramatically quick response was observed. Hypoglycemic attacks were resolved immediately and 20 mg/day prednisolone was needed as maintenance therapy to prevent recurrent hypoglycemia.

**Abdominal CT: Metastatic liver lesions**

**Abdominal CT: Pelvic mass lesion which causes destruction in the iliac bone**



**Sella MR: Pituitary microadenoma**

***Conclusions:*** HPC associated hypoglycemia is a paraneoplastic syndrome usually related with excessive production of IGF-2 or partially processed forms of pro-IGF-2. Hypoglycemia can also develop by combinations of different factors such as adrenal insufficiency that we observed in the present case. The possibility of other factor must also take into consideration evaluating and treating the hypoglycaemic attacks in patients with mesenchymal tumors.

***References:***

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***2)***Marks V, Teale JD.Tumours producing hypoglycaemia. Endocr Relat Cancer 1998; 5:111.

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Clinical Cases Pituitary/Adrenal

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