Cushing's Syndrome and Pregnancy: A Single Tertiary Center Experience

Burcin Gonul Iremli[1], Seda Hanife Oguz[1], Suleyman Nahit Sendur[1], Selcuk Dagdelen[1], Tomris Erbas[1]

Hacettepe University Medical School, [1] Department of Endocrinology and Metabolism, Ankara, Turkey

Introduction

Due to negative effects of hypercortisolism over reproductive cycle, it is extremely rare for a pregnancy to occur in Cushing's Syndrome (CS). In our study, we aim to investigate the clinical specifics in subjects diagnosed with CS while pregnancy.

Case 1

A 33-year-old and 10 weeks pregnant patient was consulted from perinatology clinic to our department with preeclampsia. It is understood that the patient has had symptoms associated with CS before pregnancy and worsened during pregnancy. Laboratory results showed ACTH-dependent hypercortisolemia. After the termination of pregnancy, IPSS and transsphenoidal surgery was performed. A 4-mm corticotroph adenoma was reported. After three years, the patient is in remission.

Case 2

A 25-year-old patient was admitted at 24th week of her pregnancy, due to symptoms of purple striae on abdomen, weight gain, hyperglycemia and hypertension. It was considered to be a case of CS. She delivered a healthy infant at 38th week via caesarean section. Post-delivery laboratory results showed ACTH-dependent hypercortisolemia. A 4-mm adenoma was excised after confirmation of central gradient via IPSS. Pathology confirmed an ACTH-secreting adenoma. The patient is in second year of remission.

Case 3

A 34-year-old patient at 10th week of her pregnancy had swelling in lower extremities and was hypertensive. With a diagnosis of HELLP syndrome, pregnancy was terminated. Her laboratory results were consistent with ACTH-independent hypercortisolemia. The patient is in fourth year of remission after left adrenalectomy for the 4 cm adenoma.

Table 1. Biochemical and characteristic features of the patients

	Case 1	Case 2	Case 3
Age	33	25	34
ACTH (pg/mL)	252	40	26
Cortisol (mcg/dL)	>122	21	27
24-h UFC (mcg/day)	6214	140	420
Source	Pituitary adenoma	Pituitary adenoma	Adrenal adenoma
Lesion size	3.5x4 mm	3x4 mm	45x32 mm
Treatment	Trans sphenoidal surgery	Trans sphenoidal surgery	Left adrenelectomy

Discussion

It's hard to differentiate CS in pregnancy because of physiological changes which developed with pregnancy. Clinical findings in CS can imitate disorders, which are typical to pregnancy such as preeclampsia or HELLP syndrome.

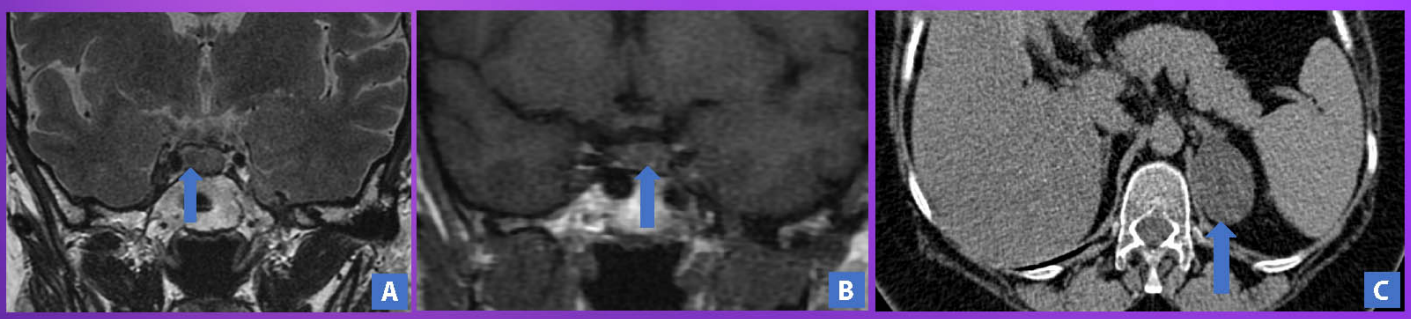

Figure 1: A: Case 1 Pituitary MRI coronal T2 image. B: Case 2 Pituitary MRI coronal T1 image. C: Case 3 abdominal CT image.