Optic neuropathy following radiotherapy for Cushing's disease followed by the diagnosis of pituitary carcinoma

Krystallenia Alexandraki, Georgios Boutzios, Georgios Nikolopoulos, Panagoula Roussaki, Maria Chryssochoou, Eleftherios Chatzellis, Marina Tsoli, Maria Kaltsatou, Panayiotis Moschouris, Gregory Kaltsas

Endocrine Unit, Department of Pathophysiology, University of Athens, Medical School, Laiko Hospital, Athens, Greece

**BACKGROUND**

Adrenocorticotrophin secreting pituitary carcinomas are rare neoplasms but there are not factors to predict their aggressive evolution nor a standard practice to their management.

**PITUITARY CARCINOMA DIAGNOSIS**

43 year old female patient presented in 1990 with Cushing's syndrome due to adrenocorticotropin secreting pituitary microadenoma

**THERAPEUTIC MANAGEMENT**

1990: Trans-sphenoidal surgery with cure (post-operative cortisol serum levels <50nmol/L).
2000: clinical, biochemical and imaging recurrence (10 years after her first remission)
2001: repeat surgery with cure (post-operative cortisol serum levels <50nmol/L).
2002: recurrence
2002-2004: Ketoconazole (increased doses up to 1200 mg) + cabergoline + somatostatin analogues therapy
2005: no tumour was documented in imaging studies; she received external beam irradiation (in total a dose as high as 54 Gy)
2005: increased doses of metyrapone up to 4000mg and ketoconazole up to 1200mg
2005: UNCONTROLLED hypercortisolæmia→ bilateral adrenalectomy

**2006:** Orbital MRI T1 revealing optic neuropathy

**References**


**CONCLUSIONS**

The appearance of pituitary carcinoma cannot be excluded by the cure post trans-sphenoidal surgery nor be prevented by a high dose of irradiation even this is so high to cause radiation-induced optic neuropathy.