The various clinical outcomes of giant prolactinomas in men

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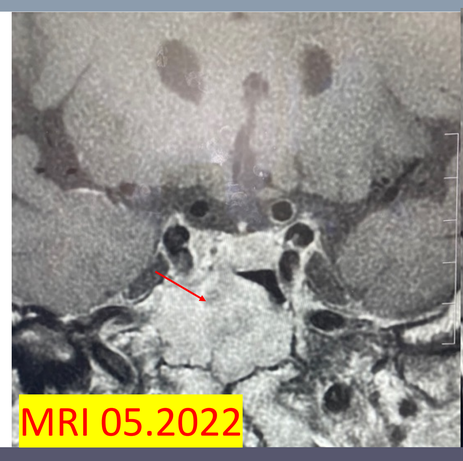
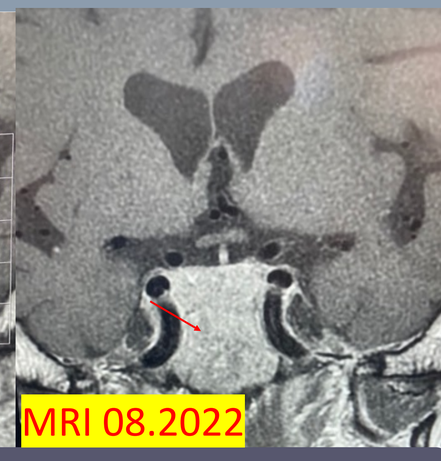
INTRODUCTION

Giant prolactinomas constitute 2-3% of all lactotroph PitNETs with male preponderance. We present five male patients with giant prolactinomas with various clinical presentations.

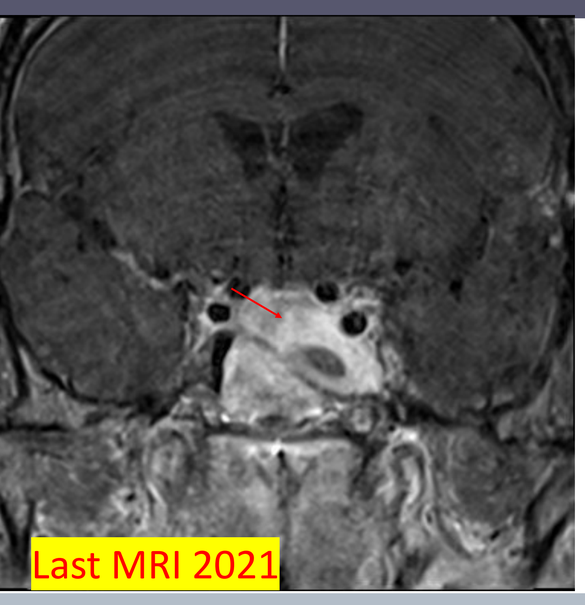
CASE 1.

A 66-year-old male hospitalized due to left peripheral facial palsy. In computer tomography (CT) pituitary mass(41x43x64mm) invading cavernous/sphenoid sinuses/carotid arteries/optic chiasm was visualized. Bitemporal hemianopia/headaches/decreased libido were observed. Prolactin level was 22083 uIU/ml (N: 86-324uIU/ml). Cabergoline up to 1mg/week was implemented. After 3 months, regression of pituitary tumor by 14mm and normal range prolactin level were observed. Milder headaches and improvement of visual field were reported.


MRI 05.2022


MRI 08.2022

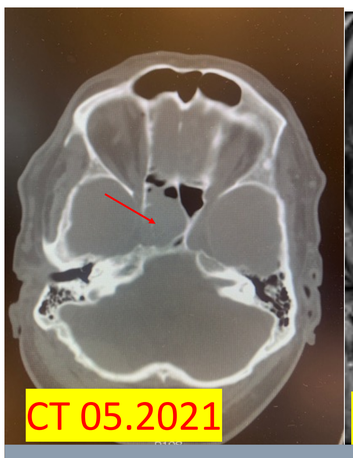
CASE 2.

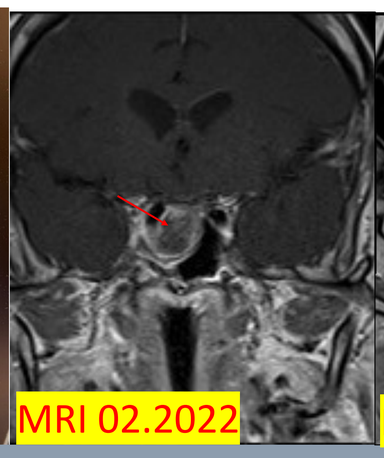

Last MRI 2021

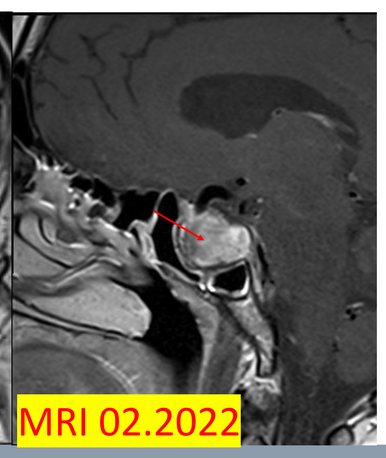
A 62-year-old male presented with life-threatening panhypopituitarism/diabetes insipidus at the age of 52. In MRI pituitary tumor 36x62x35mm with extrasellar extension/optic chiasm compression/ invading third ventricle was found. Prolactin level was 223549uIU/ml. Despite dopamine agonist treatment (bromocriptine 22.5 mg/day and cabergoline 1.5 mg/week) progression of pituitary tumor/high prolactin level were observed. In 2016 patient did not consent to neurosurgery. Short-acting somatostatin analogues was introduced. In 2019, significant visual filed deterioration was observed- patient consent to craniotomy. Histopathology revealed lactotroph-PitNET with Ki67>3%. After 6 months, tumor progression was noted. Patient was disqualified from radiotherapy. Temozolomide (200mg/m2 per 5 days every 28 days) was introduced. After 9 cycles, regression of pituitary tumor was observed and decrease of prolactin level by 2600%.

CASE 3.

A 56-year-old male was hospitalized due to syncope. In CT pituitary tumor 40x30mm was diagnosed with bitemporal hemianopsia. Prolactin level was 10446uIU/ml. Cabergoline(1mg/week) was implemented. After 3 months, regression of pituitary tumor (21x26x19mm)/normal prolactin level/improvement of vision were noted.

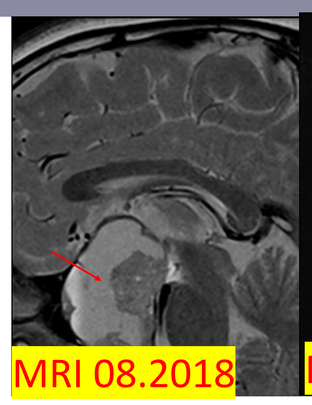

CT 05.2021

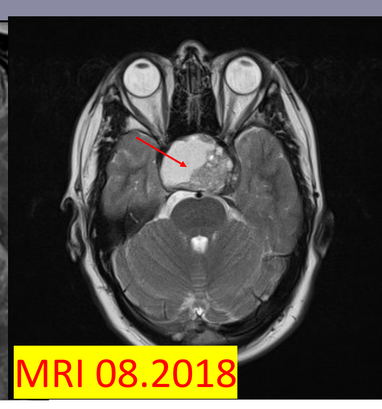

MRI 02.2022

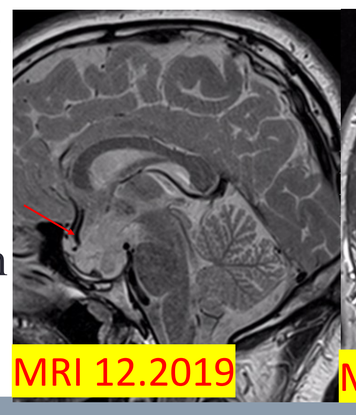

MRI 02.2022

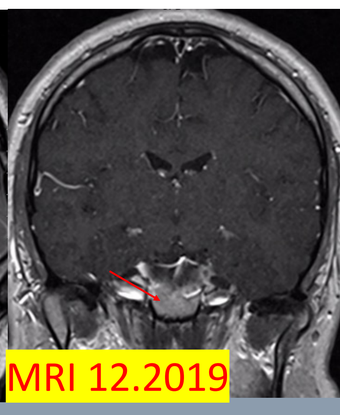
CASE 4.

A 23-year-old male presented with severe headaches and visual impairment at the age of 21. In MRI pituitary mass 52x52x41mm with extrasellar extension was found. Prolactin level was 21522uIU/ml. Insufficiency of thyroid and gonadal axis was diagnosed. Cabergoline was implemented (4mg/week) with regression of the tumor (25x13x23 mm), decrease of prolactin level (8400uIU/ml) and complete remission of headaches. Cabergoline was decreased to 2mg/week.

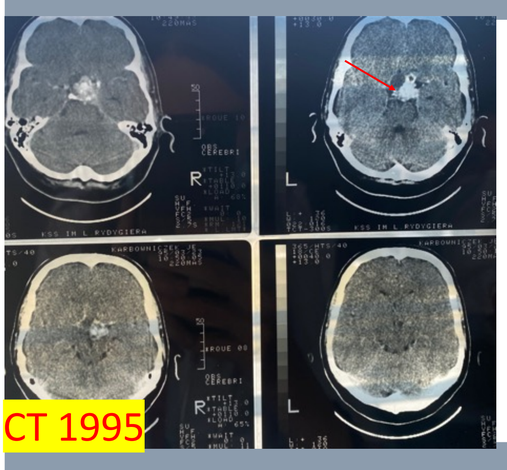

MRI 08.2018


MRI 08.2018

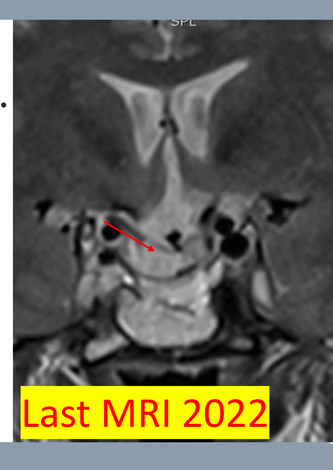

MRI 12.2019


MRI 12.2019

CASE 5.


CT 1995

A 67-year-old male diagnosed with a pituitary tumor (65x35x40mm) at the age of 50 years. Due to hyperprolactinemia, cabergoline was implemented (7mg/week). After few weeks, pituitary apoplexy occurred. Patient underwent emergency neurosurgery. Insufficiency of thyroid, adrenal and gonadal-axis appeared. MRI over next 20years demonstrated stable residual tumour(22x28x11mm). Patient is now treated with 0.25mg of cabergoline/week.


Last MRI 2022

CONCLUSIONS

The management of giant prolactionomas in men is challenging. Studies on prognostic factors of the efficient treatment in prolactinomas are needed.