

# Cabergoline-Induced Pneumocephalus – An Unusual Complication of Macroprolactinoma Treatment



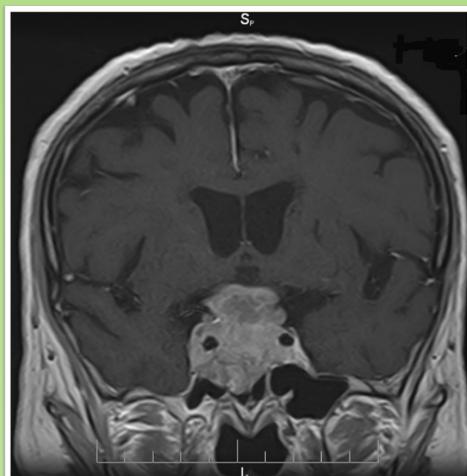
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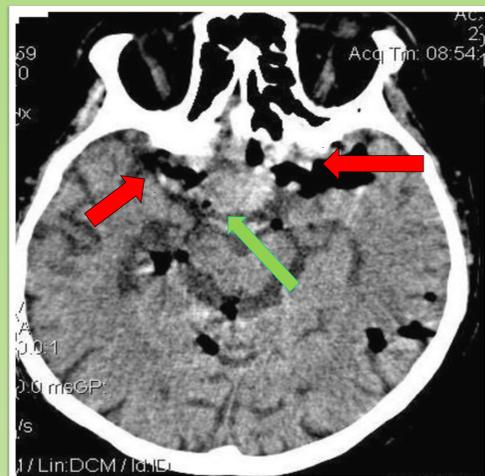
Prolactinomas are the most common hormonally active tumours of the pituitary. The treatment of choice in macroprolactinomas are dopaminergic agonists (cabergoline) that both decrease prolactin levels and shrink the tumour. Rarely, dangerous complications can arise after a quick reduction of the tumour's size.

## Male 76 years old

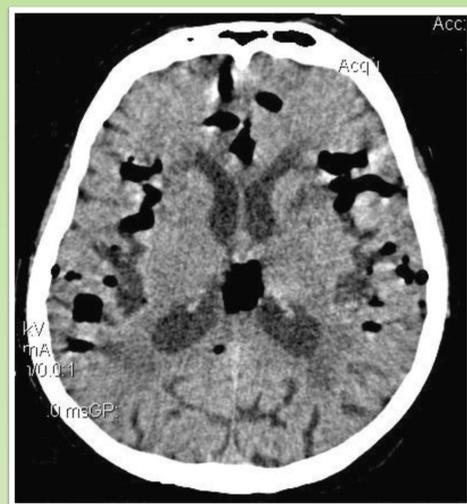
- macroprolactinoma, diagnostic level of prolactin (PRL) > 4200 mIU/l
- treatment: cabergoline 0.5 mg (Dostinex) 4 tablets per week
- the patient complained of headaches and worsening of ocular perimeter after seven weeks of cabergoline treatment
- CT scan with a finding of pneumocephalus
- no cerebrospinal fluid leak, cisternography without any canionasal communication
- rhinoendoscopy with negative result
- regression of pneumocephalus after withdrawal of cabergoline



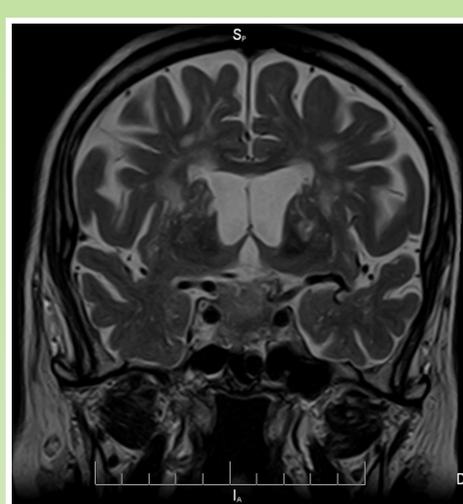
Patient no 1 – MR before treatment with cabergolin



Patient no 1 - CT scan after treatment – green arrow prolactinoma, red pneumocephalus



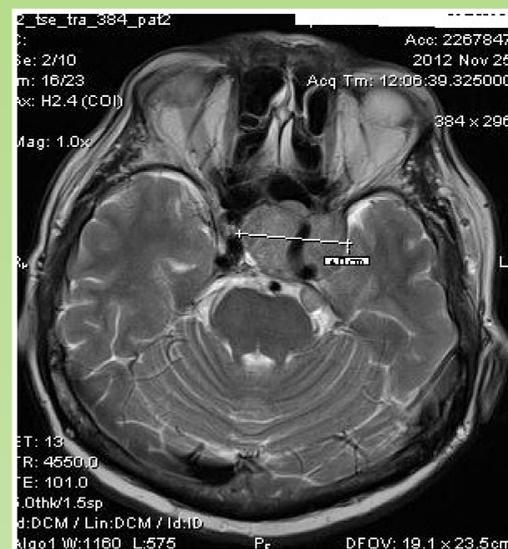
Patient no 1 – CT scan after treatment - pneumocephalus



T2 scan after a few months

## Male 65 years old

- macroprolactinoma, size of 45 mm, diagnostic level of prolactin (PRL) 222900 mIU/l
- treatment: cabergoline 0.5 mg, 4 tablets per week
- the patient experienced headache and liquorea after 5 to 6 weeks of cabergoline treatment
- MRI with a finding of pneumocephalus, communication at the base of sella turcica
- an endoscopic defect repair and tumor debulking were performed.
- a second endoscopic defect repair was performed for residual liquorea
- for visual field defect cabergoline was returned in the dose of 1 tablet (0.5 mg) per week



Patient no 2 - MR before treatment



Patient no 2 - MR after treatment with cabergolin – red arrow pneumocephalus

## Conclusion:

**Pneumocephalus is a rare complication in pharmacologically treated macroprolactinomas. Quick diagnosis and urgent surgical treatment are of utmost importance.**