

Craniopharyngiomas in Adults: a French cohort study of 151 patients

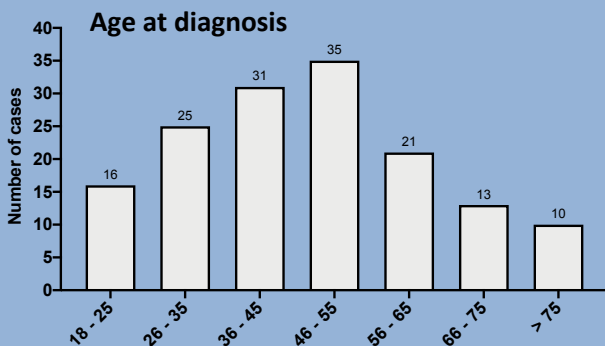
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Introduction: Craniopharyngiomas (CPs) are rare brain tumors located either in the sella turcica or above the sella turcica (suprasellar). They are managed primarily with surgery and radiotherapy, with high rate of postoperative pituitary deficiencies. We, here describe clinical and paraclinical data of a french cohort of adult patients (age of diagnosis ≥ 18 yo) diagnosed with CPs.

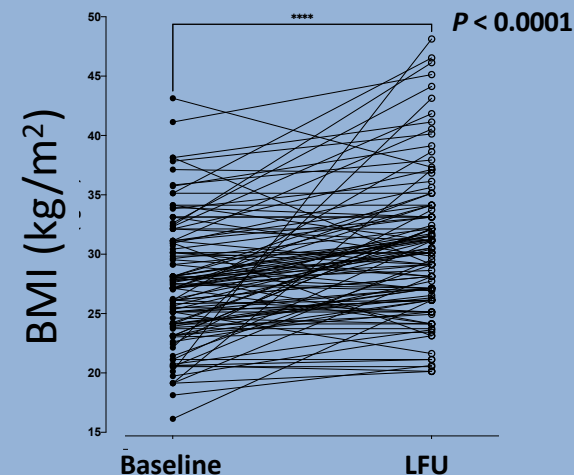
Methods: 151 adult patients from a large cohort of 220 patients from two french university hospital centres were enrolled in this study

Results : there were 86 women and 65 men, with diagnosis made in 51% of patients between 36 and 55yo and in 29% after 56 y (Figure 1). A total of 5 patients died of CP-related events. At the diagnosis, clinical symptoms were visual disturbances (67%), headaches (30%), clinical symptoms of anterior pituitary deficiencies (17%), signs of intracranial hypertension (16%), neurocognitive impairments (14%), polyuria-polydisia (9%) and, eventually, incidentaloma (2%). Pituitary MRI showed cystic content in 95% of tumors and, based on the degree of hypothalamic invasion, Puget's grade was 0 in 15%, 1 in 30% and 2 in 55% of cases, respectively (Figure 2). Grade 2 tumors were significantly associated with neurocognitive impairments at diagnosis ($p = 0.05$). When the pituitary stalk was unseen or resected during surgery, a higher risk of postoperative diabetes insipidus occurred ($p = 0.008$). Only 10 (6.6%) patients did not have any pituitary deficiency at the last follow-up (LFU), including 2 non operated patients. Of note, at the LFU, 35% of patients had an hypothalamic obesity (BMI ≥ 30 kg/m²) and 34% complained of eating disorders. Amongst these patients, 20% of them had a normal BMI (19 – 24), underlining the limit of this clinical parameter for truly appreciating the impact of eating disorders. Finally, 18% and 23% of patients had sleep apnea syndrome and type 2 diabetes at the LFU, respectively.



Grade 0	Grade 1	Grade 2
No Hypothalamic Involvement	Compression of Hypothalamus	Hypothalamus Unidentified
14.5%	30.6%	54.8%
Maximal Diameter (mean \pm SD)		
10.6 \pm 4.5 mm	22.4 \pm 6 mm	35 \pm 7 mm*

* $P < 0.0001$



Discussion: CPs in adults are characterized by a high prevalence of neurocognitive impairments, metabolic complications and eating disorders, inappropriately appreciated by only looking at the BMI