

# Age Does Not Predict Outcome: Observation and Surgical Management of Rathke's Cleft Cysts in Patients Aged $\geq 65$ Years

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## Background

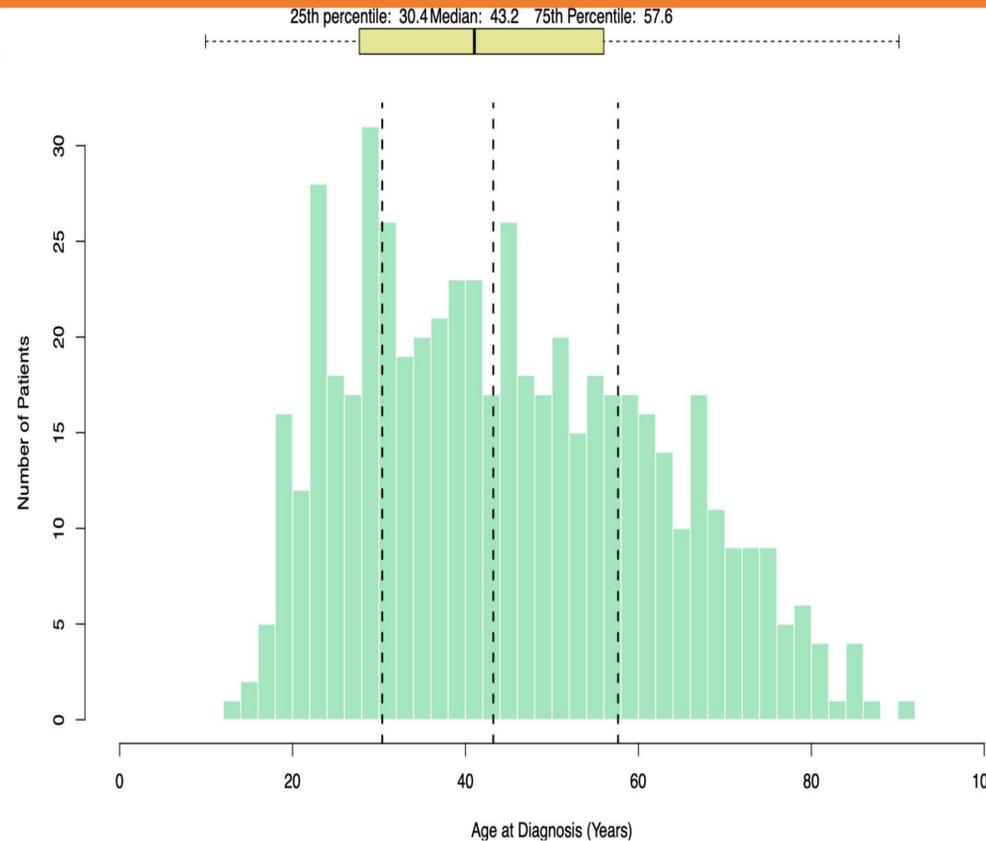
- Increasing cranial imaging has led to more **incidental Rathke Cleft Cyst (RCC) diagnoses in elderly patients**
- Age often influences management due to:
  - Perceived slow RCC growth
  - Concerns about surgical risk and frailty

## Goal of Study

- Question:** Should age  $\geq 65$  alter RCC management decisions?
- We evaluated presentation, treatment patterns, and outcomes in a large age-stratified cohort.

## Methods

- Retrospective review of **544 RCC patients (2000–2024)**
- Stratified by:
  - Age:**  $<65$  vs.  $\geq 65$
  - Initial management:**
    - Truly Observed
    - Observed  $\rightarrow$  Surgery
    - Initial Surgery
- Compared:
  - Clinical presentation
  - Radiographic progression
  - Surgical outcomes
- Statistics: Kruskal-Wallis, Chi-square, Fisher's exact



**Figure 1:** Distribution of Age at Rathke Cleft Cyst Diagnosis

	Initial Decision: Observation (n=40)	Initial Decision: Surgery (n=43)	P-value
Age (mean $\pm$ SD), years	72.8 $\pm$ 6.6	70.6 $\pm$ 5.3	0.097
Female, n(%)	25 (62.5%)	31 (72.1%)	0.311
Size at diagnosis (mean $\pm$ SD), mm	9.0 $\pm$ 3.8	11.6 $\pm$ 6.5	<b>0.03</b>
Incidental Diagnosis, n(%)	16 (40.0%)	12 (27.9%)	0.438
Headache, n(%)	11 (27.5%)	28 (65.1%)	<b>&lt;0.001</b>
Visual Symptoms, n(%)	5 (12.5%)	23 (53.5%)	<b>0.002</b>
Hormonal Dysfunction, n(%)	10 (25.0%)	41 (95.3%)	<b>&lt;0.001</b>
Grew during Follow-Up/Cyst Recurrence, n(%)	14 (35.0%)	10 (23.3%)	0.349
Final Decision at Follow-Up: Surgery/Re-operation, n(%)	5 (12.5%)	7 (16.3%)	0.86

**Table 1:** Comparison of Adults  $\geq 65$  by Initial Management Strategy

## Results

- 83/544 (15.3%)** were  $\geq 65$  years; initial surgery rates were similar between groups (**51.8% vs. 46.6%; p=0.2**).
- Elderly patients presented with **larger cysts** ( $11.0 \pm 5.7$  vs.  $8.1 \pm 5.4$  mm;  $p<0.001$ ) and were **less likely to report headache** (46.0% vs. 68.8%;  $p<0.001$ ).
- Among patients initially observed, cyst growth was similar (**35.0%  $\geq 65$  vs. 30.9%  $<65$ ; p=0.6**); delayed surgery rates and time to surgery were comparable (12.5%; 18.9 vs. 19.6 months;  $p=0.8$ ).
- Surgical outcomes did not differ by age: residual cyst (33% vs. 28%), recurrence (21% vs. 27%), and reoperation (15% vs. 17%) (all  $p>0.3$ ).
- Elderly patients experienced **greater headache improvement after surgery** (**48.7% vs. 27.1%; p=0.013**); visual improvement and new endocrine deficits were similar by age.
- Postoperative endocrine replacement was more frequent in elderly patients (**45.8% vs. 30.1%; p=0.043**)

## Discussion

- Age  $\geq 65$  was not associated with worse outcomes,**
- Elderly patients had similar management patterns and surgical safety profiles compared to younger patients.
- Elderly patients experienced **greater headache improvement**, suggesting meaningful symptomatic benefit when surgery is indicated.
- These findings support **symptom- and imaging-driven decision-making**, rather than age-based treatment bias, in RCC management.

## References

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