Lu VM et al. Recurrence of Rathke's cleft cysts based on gross total resection of cyst wall: a meta-analysis. Neurosurg Rev. 2020;43(3):957-66. doi: 10.1007/s10143-019-01107-2.

Rathke's cleft cysts (RCCs) are benign growths of the embryological Rathke's pouch. Surgical decompression provides effective symptomatic relief in most cases; however, the effect of gross total resection (GTR) of the cyst wall on recurrence, as well as pituitary function, is unclear.

The aim of this meta-analysis was to pool the current literature and ascertain the recurrence control afforded by GTR of the cyst wall compared with subtotal resection (STR).

Searches of seven electronic databases from inception to January 2019 were conducted following PRISMA guidelines, resulting in 476 articles to be screened. Outcomes were analyzed using meta-analysis of proportions.

A total of 10 retrospective cohort studies satisfied selection criteria, describing 655 surgically managed RCC cases, with 254 (39%) and 401 (61%) achieving GTR and STR of the cyst wall, respectively. GTR was associated with significantly reduced overall RCC recurrence by fixed-effects (FE) modeling (RR, 0.66; 95% CI, 0.45-0.96), but not by random effects (RE) modeling (RR, 0.75; 95% CI, 0.51-1.12). Based on both models, GTR was associated with significantly reduced

symptomatic recurrence (RE model, RR, 0.37, 95% CI, 0.14-0.95) and significantly increased postoperative diabetes insipidus (RE model, RR, 2.60; 95% CI, 1.34-5.03). There was insufficient data to evaluate other pituitary axes in this context.

The current evidence indicates that GTR of the RCC cyst wall has the potential to affect the incidence of overall and symptomatic RCC recurrences, as well as drive postoperative DI incidence. However, expectations of clinical and pragmatic benefit following cyst wall resection should be titrated carefully against the potential for postoperative and pituitary morbidities which

currently remain poorly defined. Greater granularity is required to understand all factors that can influence recurrence and quality of life when evaluating resection of RCC.