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Panhypopituitarism after treatment procedures in pituitary-hypothalamic area – a single center experience

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INTRODUCTION

The most common conditions, requiring surgery or radiation therapy of the sella and suprasellar area in childhood are craniopahygiomas and pituitary adenomas. Therapeutic procedures involving pituitary gland often lead to multiple hormonal deficiencies, and experienced multidisciplinary team following guidelines and applying systematic approach could improve outcomes.

AIM

- to evaluate hormonal replacement therapy among children and adolescents with post procedural hypopituitarism.

METHOD

- A retrospective observational study at a tertiary pediatric endocrine university center encompassing a period of 10 years (01 January 2010 to 31 December 2019)
- Patients with post procedural hypopituitarism patients followed for ≥ 1 y. were included in the study.
- Collected data was:
  - Demographic
  - Anthropometric
  - Type duration of hormonal replacement therapy

RESULTS

- *A total of 9 patients were enrolled*
- *44% were girls*
- *Mean age at diagnose was* 9.7±2.7 years (6.5 - 14)
- Type of tumors distribution (***fig.1***)
- In 78% (n=7) of the cases total extirpation of the tumor was achieved and in 22% - subtotal excision
- 56% (n=5) of cases was operated abroad, 33% (n=3) in other center in BG and 11% (n=1) in our setting
- Frequency of postoperative hormonal deficiencies are presented at fig.2

Fig. 1 Type of tumors

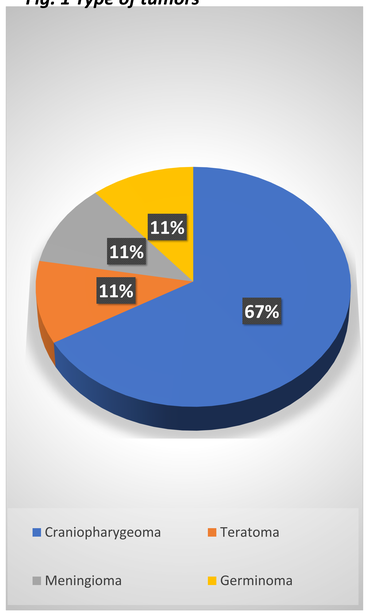
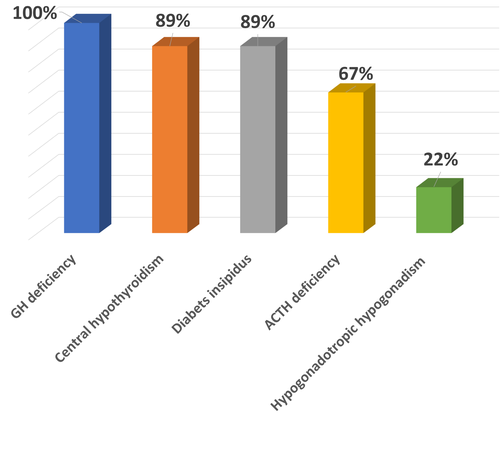
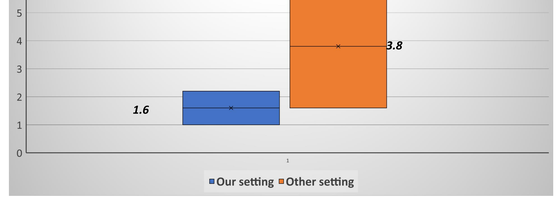


Fig. 2 Frequency of postoperative hormonal deficiencies



- Mean age of intial GH replacement was 12.4±2.4 years
- Only 55.5% start rhGH replacement at least 2 years after operation
- Mean time until the start of rhGH was 3.0±2.0 years after the operation
- Time of start with rhGH replacement after the operation- ***Fig.3***
- No recurrence of tumor was observed after initiation of the rhGH therapy.

Fig. 3 Time of start with rhGH treatment after operation in years



CONCLUSIONS

- In half of the presented patients, treatment with rhGH was delayed compared to the recommended initial timeline of 1 postoperative year.
- In order not to delay rhGH replacement therapy, patients with sellar and suprasellar lesions and tumors should be referred to Expert centers for rare endocrine conditions as early as possible.

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