SINGLE CENTRE EXPERIENCE ON GH DEFICIENCY MANAGEMENT: A REAL-LIFE STUDY

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Background: Growth hormone deficiency (GHD) in childhood is characterized by short stature but a definite clinical syndrome has been described also in adulthood. Substitutive therapy with recombinant GH (rGH) is effective but safety and the rate of drop out are of concern.

Materials and methods: Retrospective, single-centre study of patients treated with at least one dose of rhGH

Case report: 102 patients with GHD were evaluated (65 male and 37 female). 30 patients (29%) were childhood onset GHD (CO-GHD), 70 patients (71%) were adulthood onset GHD (Ao-GHD). The causes of GHD are expressed in image 1 and 2. Eight patients started treatment only during the transition phase due to delayed diagnosis.

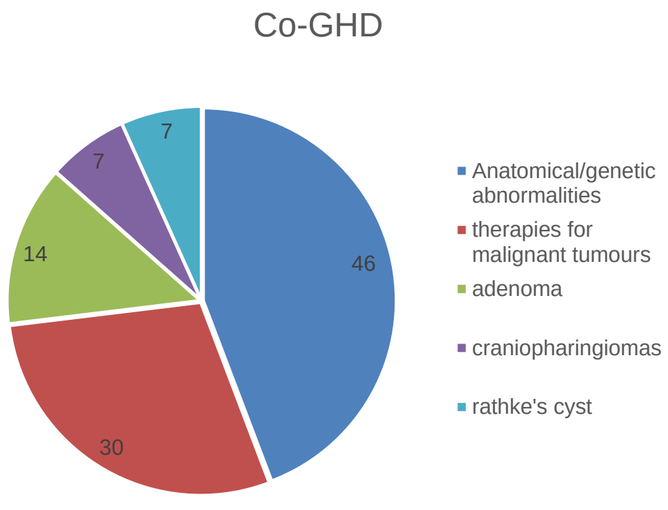

Image 1

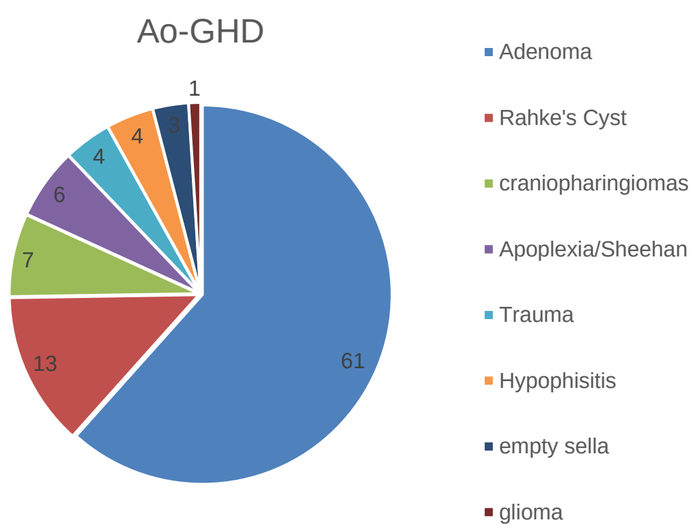

Image 2

Overall hypopituitarism was present in 94 patients (92%).

In table 1 we summarize the therapy in transition and AoGHD at initial time of follow up, after 10-14 months and at final visit.

The mean follow-up on rGH active therapy was 22 +/-10 years in CoGHD, 14 +/- 10 years in transitional patients and 15 +/- 6 years in AoGHD.

Category (n)		Starting dose:	10-14 months	Last visit
Transition patients	Female dose (mg)	0.2 +/-0	0.6 +/- 0	0.46 +/- 0,24
	IGF-1 (ug/l)	125 +/-25	121 +/0	121 +/77
	Male dose (mg)	0.32 +/ 0.15	0.45 +/- 0.3	0.65 +/- 0.41
	IGF-1 (ug/l)	128 +/-91	160 +/- 64	128 +/- 97
AoGHD	Female dose (mg)	0.22 +/-0.07	0.33 +/- 0.13	0,35+/- 0.31
	IGF-1 (ug/l)	66 +/-46	128 +/-68	138+/- 70
	Male dose (mg)	0.26 +/ 0.14	0.28 +/- 0.12	0,23+/- 0.7
	IGF-1 (ug/l)	81 +/-44	172 +/- 61	139+/- 48

Table 1

STOP THERAPY

In CoGHD10 patients (33%) stopped rhGH therapy:

- 6 were non compliant or refused to go on therapy,
- 1 stopped for side effects;
- 1 for relevant comorbidities;
- 1 for pituitary tumour recurrence;
- 1 for traumatic death;
- 1 patient was transferred to another center.

In AoGHD 26 patients (37%) stopped rhGH:

- 9 for onset of a secondary neoplasia;
- 4 deceased for causes unrelated to GHD;
- 5 were non compliant or refused to go on therapy;
- 2 for side effects;
- 2 were lost in follow up;
- 2 recovered from GHD;
- 1 for recurrence of pituitary tumour;
- 2 for unknown reasons;
- 2 patients were transferred to other centers.

Discussion and Conclusions: In our population the causes of GHD were clearly different in CoGHD and in AoGHD, reflecting data from Literature. The follow-up of patients in active therapy is very long spanning over 15 yrs. Normal IGF-I concentrations were achieved in most patients within 1 year and kept normal during a long term period, albeit female patients showed worse responses. The main cause of drop out in CoGHD was poor compliance while in AoGHD were death and onset of new neoplasms.