

Cushing`s disease treatment results correlation with pituitary MRI in children

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INTRODUCTION

Transsphenoidal surgery (TSS) is a treatment of choice for Cushing`s disease (CD), whose effectiveness range is from 70 to 90%. Recurrence rate after successful treatment is about 25%. Preoperative predictors of remission and recurrence are still unexplored what leads to further investigations.

AIM

Analysis of remission and recurrence rates of CD after radical treatment according to preoperative MRI.

RESULTS

We analyze remission rates in groups after treatment according to preoperative MRI. There were no significant differences in remission rates after treatment between groups ($p=0,21$ и $p=0,83$ respectively, χ^2 analysis). Data is presented in Table 1.

Analysis recurrence rates in groups showed that there were no significant differences in time to recurrence of CD in patients according to preoperative MRI ($p=0,054$, χ^2 analysis) (Figure 1).

Figure 1. Kaplan-Meier curve showing freedom from recurrence of CD in patients according to preoperative MRI (total $n=68$)
Group 1 – with no visible adenoma ($n= 27$, 1 patient had recurrence)
Group 2 – with microadenoma ($n= 30$, 4 patients had recurrence)
Group 3 – with macroadenoma ($n= 11$, 3 patients had recurrence).

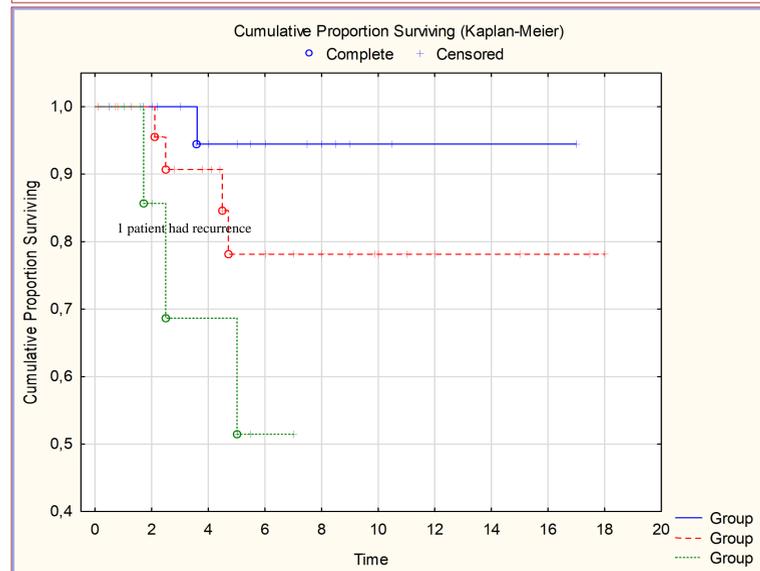
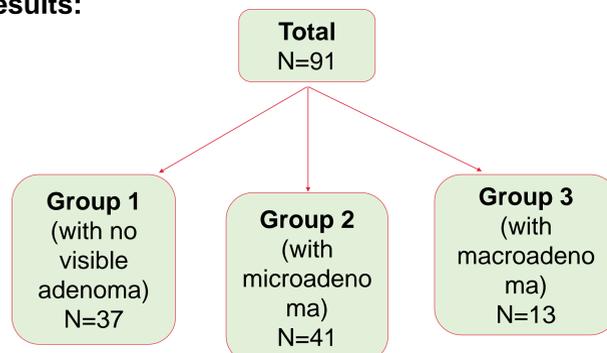


Table 1. Remission rates after 1st line of treatment according to preoperative MRI. Comparisons between groups were calculated using χ^2 analysis. A P value of $<0,05$ was considered statistically significant.

Treatment/ result	All patients	No visible adenoma	Micro-adenoma	Macro-adenoma	P
First TSS	63	19	32	12	
Remission (n,%) 95% CI	45 (71%) [58;82]	12 (63%) [38;84]	23 (72%) [53;86]	10 (83%) [52;98]	0,21
First SRS	28	18	9	1	
Remission (n,%) 95% CI	23 (82%) [63;94]	15 (83%) [59;96]	7 (78%) [40;97]	1 (100%) [25;100]	0,83

METHOD

Patients were divided into 3 groups according to preoperative MRI results:



CONCLUSIONS

Our study didn`t show any differences in remission rates and time to recurrence after successful treatment according to preoperative MRI

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