Eating Behaviour and Weight Problems in Long-term Survivors of Childhood Craniopharyngioma
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Introduction

Childhood Craniopharyngioma (CP) is a rare dysontogenic malformation originating from remnants of Rathke’s pouch. Due to hypothalamic tumour involvement and/or treatment related hypothalamic damage, up to 75% of patients develop hypothalamic obesity, leading to sequelae and impaired quality of life. However, until now the eating behaviour of CP patients and its impact on their weight problems is unknown.

Patients and methods

In this case-control study, the eating behaviour and psychological assessment of weight problems in 101 CP patients, recruited between 1980 and 2001 in the HIT Endo trial, were analysed as well as a gender-, age- and BMI-matched healthy control group (n=85). Anthropometric measurements and assessment of eating behaviour by the "Inventory for Eating Behaviour and Weight Problems (IEG)" questionnaire were performed at the same time.

Table 1: 18 out of 23 domains of the “Inventory for Eating Behaviour and Weight Problems (IEG)” questionnaire with 192 questions (Diehl,J.M., Staufenbiel, T.: Inventar zum Essverhalten und Gewichtsproblemen IEG; Eschborn: 2002)

Results

The comparison of normal weight controls with normal weight matched controls shows a statistical proven difference in 10 domains. In all of these domains CP patients score better then the normal weight controls (Fig 1). Obese CP patients showed significantly less pathological eating behaviour for 10 of 23 compared to their BMI-matched obese controls (Fig 2). Severe obese CP patients (BMI>+8SD) have significantly more problems with eating behaviour compared to severely obese CP patients with a BMI lower and equal to +3 SD and higher than +3 SD (Fig 3).

Conclusions

Obese CP patients score better or non-different to obese controls on all IEG domains. We can conclude that there is no disease specific disturbance of eating behaviour in CP patients. This is further supported by the fact that normal weight CP patients score better or non-different than normal weight controls on all IEG domains. We hypothesize, that severe obesity in CP patients might be the result of hypothalamic involvement / damage but not of disease-specific alterations in eating behaviour. More knowledge of hypothalamic regulation of food intake is needed to recommend appropriate therapeutic options.

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