positively correlated with increased left ventricular internal diameter in diastole (LVIDd), R^2=0.596, F=10.323, p<0.001. BMI and insulin resistance were selected as significant independent determinants of IVSd, produced R2=0.655, F=29.441, p<0.001. Due to wide range of disease duration, 17 pediatric and 19 adult patients were analyzed separately. In the adult subgroup (age at study ≥18 years), BMI correlated with IVSd (r=0.707, p=0.003), LVPWd (r=0.592, p=0.020) and LVIDd (r=0.571, p=0.026). In the pediatric subgroup (age at study <18 years), no correlation between cardiac parameters and BMI was observed. Only LVIDd correlated with disease duration (r=0.645, p<0.001). All cardiac functions were within the normal range, indicating no association with functional impairments. We conclude that cardiac remodeling in patients with childhood-onset craniopharyngioma correlated with the degree of hypothalamic obesity, disease duration, sex hormone replacement therapy, male gender and insulin resistance. As echocardiography has limited sensitivity in patients with obesity, further research on more sensitive techniques for cardiac diagnostics in craniopharyngioma patients is warranted.

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Cerebral Infarction in Childhood-Onset Craniopharyngioma Patients - Results of KRANIOPHARYNGEOM 2007

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Purpose: Cerebral infarction (CI) represents a vascular complication following treatment of suprasellar tumors. Risk factors for CI, incidence rate, and long-term prognosis are unknown for patients with childhood-onset craniopharyngioma (CP). **Methods:** MRI of 242 CP patients, recruited 2007-2019 in KRANIOPHARYNGEOM 2007, were reviewed for CI. Risk factors for CI and outcome after CI were analyzed. **Results:** Twenty-eight of 242 patients (11%) presented with CI based on reference assessment of MRI. One CI occurred before initial surgery and one case of CI after release of pressure via intracystic catheter. 26 of 28 CI were detected after CP resecting surgical procedures at a median postoperative interval of one day (range: 0.5-53 days). Surgical intraoperative vascular lesions were documented in 7 cases with CI. There was a trend (p=0.069) towards higher initial presurgical tumor volume in CI patients (21.7 cm^3, range: 0.01-187.6 cm^3) compared with non-CI patients (15.5 cm^3, range: 0.01-286.3 cm^3). The CI rate was lower in cases operated via transsphenoidal approach (4%) when compared with transcranial approach (13%). CP patient load of neurosurgical centers as a potential measure of surgical expertise was not associated with CI. In 12 irradiated patients, CI occurred before irradiation in all cases. Multivariate analyses showed that hydrocephalus and gross-total resection (GTR) at the time of primary diagnosis/surgery were independent risk factors for CI. Two-years progression-free survival rate was lower (p=0.023) after CI (0.310±0.095) when compared with the subgroup of patients without CI (0.604±0.034). After CI, quality of life (PEDQOL) and functional capacity (FMH) were impaired when compared with patients without CI. **Conclusions:** CI occurs in about 11% of CP cases mainly after surgery. Degree of resection and increased intracranial pressure are risk factors, which should be considered in the planning of surgical procedures for prevention of CI.

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Changes in Quality of Life After Long-Term Biochemical Control of Acromegaly

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Acromegaly results in impaired quality of life (QoL), which improves but does not normalize after biochemical control of growth hormone (GH) excess. There are few data regarding long-term QoL in patients with sustained biochemical control of acromegaly. We hypothesized that QoL would continue to improve over time but remain poor. We studied 2 cohorts with biochemically controlled (normal IGF-1 level) acromegaly. MED (n=42) underwent surgery but required somatostatin analog (n=30) or GH receptor antagonist monotherapy (n=12); n=16 had undergone radiation. SURG (n=24) were in remission after surgery ± radiation (n=10). GH stimulation testing was performed in all SURG; n=11 had GH deficiency (GHD). QoL was assessed at 2 timepoints by the 36-Item-Short-Form Health Survey (SF-36) (MED, SURG), Acromegaly Quality of Life Questionnaire (AcroQoL) (MED), Gastrointestinal Quality of Life Index (GIQLI) (MED), Symptom Questionnaire (SQ) (SURG), and QoL-Assessment of GHD in Adults (AGHDA) (SURG). Time between timepoints 1 and 2 was 5.4 ± 1.0 vs 13.6 ± 1.2 years (MED vs SURG, p<0.001), and mean duration of biochemical control for MED vs SURG at timepoint 2 was 14.8 ± 6.6 vs 20.8 ± 8.2 years (p<0.001). At timepoint 2, mean (± SD) age (61 ± 12 years), mean BMI (30 ± 7 kg/m^2), sex (68% female), and hypopituitarism (64% with ≥1 pituitary hormone deficiency) were similar between MED and SURG; mean IGF-1 index (IGF-1 level/mean normal range) was 1.00 ± 0.37 for MED vs 0.78 ± 0.40 for SURG (p=0.08); 79% of MED remained on medication. In MED, there was no change in SF-36 scores between timepoints, but all AcroQoL subscales and 2 GIQLI domains (Physical State, Emotions) improved, even after controlling for age, BMI, radiation treatment, and hypopituitarism. Results