Changes in metabolic parameters and cardiovascular risk factors after therapeutic control of acromegaly vary with the treatment modality. Data from the Bicêtre cohort, and review of the literature

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Résumé en anglais	CONTEXT: Untreated acromegaly is associated with increased morbidity and mortality due to malignant, cardiovascular, and cerebrovascular disorders. Effective treatment of acromegaly reduces excess mortality, but its impact on cardiovascular risk factors and metabolic parameters are poorly documented. AIM: We analyzed changes in cardiovascular risk factors and metabolic parameters in patients receiving various treatment modalities. PATIENTS AND METHODS: We retrospectively studied 96 patients with acromegaly, both at diagnosis and after IGF-I normalization following surgery alone (n = 51) or medical therapy with first generation somatostatin analogues (SSA, n = 23), or pegvisomant (n = 22). Duration of follow-up was 77 (42-161) months, 75 (42-112) months, and 62 (31-93) months, in patients treated with surgery alone, SSA, and pegvisomant, respectively. In all the cases except four, patients treated medically had underwent previous unsuccessful surgery. RESULTS: IGF-I normalization was associated with increased body weight, decreased systolic blood pressure (SBP) in hypertensive patients, decreased fasting plasma glucose (FPG) and HOMA-IR and HOMA-B levels, increased HDL cholesterol (HDLc); whereas, LDL cholesterol (LDLc) was not significantly different. Plasma PCSK9 levels were unchanged in patients with available values. Cardiovascular and metabolic changes varied with the treatment modality: surgery, but not pegvisomant, had a beneficial effect on SBP; FPG decreased after surgery but increased after SSA; the decline in HOMA-IR was only significant after surgery; pegvisomant significantly increased LDLc and total cholesterol; whereas SA increased HDLc and had no effect on LDLc levels. CONCLUSION: Treatments used to normalize IGF-I levels in patients with acromegaly could have differential effects on cardiovascular risk factors and metabolic parameters.
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Liens

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