A shifted psychopathological risk profile in acromegalic patients? : abstract

Introduction: GH and IGF-1 have pleiotropic functions on the nervous system. In acromegalic patients, the long-lasting excess of GH and IGF-1 lead to considerable morbidity such as organomegaly, diabetes mellitus and a variety of neurological complications such as nerve compression syndromes. While personality changes sometimes referred to as 'endocrine psychosyndrome' have been noted in acromegalic patients, no systematic investigation on psychiatric and neuropsychological correlates with standardized instruments have been presented so far. Methods: In this cross-sectional, diagnostic study we assessed 81 patients treated for acromegaly at the Endocrine Outpatient Unit of the Max Planck Institute of Psychiatry and the Hospital of the Ludwig-Maximilians-University (Klinikum Innenstadt) including a comprehensive clinical history, biochemical analysis, and a standardized computer-based psychopathological assessment to determine lifetime and one-year prevalences of mental health disorders according to the DSM IV classification. For the control group, we selected 3281 subjects from the General Health Survey with at least one chronic somatic disease such as diabetes mellitus, cardiovascular disease or cancer examined with the same instruments (Jacobi et al., 2004). Results: Our patient sample with clinically and biochemically confirmed acromegaly (at time of observation either controlled or uncontrolled) showed an overall increased lifetime prevalence of affective disorders of 34.6% compared to 21.4% in the control group (OR 2.47, CI 1.47-4.41). The affective disorders were mainly composed of major depressive episodes (28.4%) and dysthymia (18.5%). Interestingly, not even one acromegalic patient fulfilled the criteria for having ever suffered from a panic attack or panic disorder compared to the expected prevalence of 9.1% (4.5% respectively) in the control group. Analyses of the chronological sequence revealed, that in 74.5% of the cases, the psychiatric condition occurred before the diagnosis of acromegaly, but after the presumed onset of the GH-excess. Conclusion: Our data point to a shifted risk profile of acromegaly to go along with affective disorders, exceeding and differing from the risk generally associated with chronic disorders and non-functioning pituitary adenomas. The highest risk for developing mental disorders in acromegalic patients might be during the induction phase of the disease with high levels of GH- and IGF-1. This counterargues against the notion that either the diagnosis (life event) or the treatment triggers a first depressive episode for example. Further analyses of our sample will be carried out to elucidate how therapy, biochemical control and symptoms might affect psychopathological conditions.
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