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Background

AGHD significantly impacts on metabolism, body composition and quality of life (QoL), including sexuality.

AIM

To investigate the impact of a smartphone App on AGHD monitoring, especially QoL and comorbidities as well as on both body composition and biochemical parameters.

Methodology

83 AGHD patients were enrolled in this prospective, open-label, monocentric study (MAGHD Study) of 24-month duration. Patients were evaluated (clinical, biochemical and multidimensional investigations) every 6 months, for a total of 5 visits (from V0, V1, V2, V3 e V4). Multidimensional evaluation included the following questionnaires: QoL-AGHDA, QLS-H, WEMWBS, IPAQ, PSQI e IIEF-15 e FSFI for QoL and sexual function. Body composition was evaluated at V0, V2 and V4 by DEXA. After the first year (Phase 1), patients were grouped according to the acceptance to use (Group 1) or not (Group 2) the smartphone App (MAGHD App) for answering questionnaires. Thus, during the second year (Phase 2), 58 patients provided questionnaires answers through MAGHD App (Group 1) and the remaining 25 patients continued with standard compilation of questionnaires only at visits every 6 months without using MAGHD App (Group 2).

Results

The use of the MAGHD App resulted in a higher number of completely filled questionnaires in Group 1 (15.68 ± 8.10) compared to Group 2 (10.33 ± 2.09) ($P < 0.001$). QoL-AGHDA ($P = 0.001$), QLS-H ($P = 0.030$), IPAQ ($P < 0.001$), IIEF-15 ($P = 0.005$) and FSFI ($P = 0.002$) scores were significantly better in Group 1 than Group 2. Compliance to r-hGH therapy increased in Group 1 comparing Phase 1 to Phase 2, but without statistical significance ($P > 0.05$). Comorbidities resulted increased in number in Group 2 compared to Group 1 ($P < 0.05$). No differences were found between Group 1 and 2 in biochemical and hormonal outcomes.

Conclusions

The use of an *ad hoc* designed smartphone App is well-accepted by patients and associated with a good adherence in its use, suggesting positive effects on QoL in AGHD patients. The integration of a smartphone App in the clinical practice is feasible and may help empowering patients with chronic diseases such as AGHD on daily self-monitoring of their disease trend, beyond helping physicians in tailoring the clinical management. This study belongs to the Pfizer Inc. "Independent Grant for Learning and Change, Dissemination & Implementation" (Grant ID 34515061). DOI: 10.1530/endoabs.90.P687

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Incidental pituitary macroadenoma: natural history and surgical results

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Introduction

The Incidental diagnosis of non-functioning pituitary macroadenomas (NFPMA) is becoming more prevalent with the spread of modern imaging techniques. More clinical data about their natural history and surgical results are needed.

Methods

We retrospectively analyzed medical files of patients referred to our clinic for an incidental NFPMA between 2010 and 2019. In particular, we compared patients that experienced tumor growth or not during surveillance, and surgical results in patients who had deficits or not at surgery.

Results

We included 65 patients (mean age $\pm$ SD: 60 ± 14 years; mean maximal diameter: 20.0 ± 7.3 mm). 44% had pituitary hormone deficits (LH/FSH 41%, TSH 29%, ACTH 15%) and 12% had visual field deficits. 26 patients had early surgery and 13 had delayed surgery after initial surveillance. In the surveillance group ($n = 35$), the risk of tumor growth was estimated at 10%/year (median time of 57 months to reach 50%). Patients with hormonal deficit at diagnosis tended to experience earlier growth ($P = 0.082$). Overall surgery led to stable or improved endocrine function in 91%

(31/34) of patients, with only 6% (2/34) post-operative permanent diabetes insipidus. Surgery was more effective in preserving intact endocrine function (10/12) than restoring altered endocrine function to normal (6/22, $P = 0.03$).

Conclusion

Incidental NFPMA are often responsible for unrecognized endocrine and visual deficits and require careful evaluation. If surveillance is chosen, the risk of growth is significant (10%/year) and seems to occur faster in patients already harboring an endocrine deficit. Early surgical removal before endocrine deficits occur might lead to better endocrine outcome.

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Abstract withdrawn

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Evaluation of Serum Omentin-1 Levels and Atherosclerotic Risk Factors in Patients with Prolactinoma

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Background

Prolactinoma is the most common functioning pituitary adenoma. Subclinical atherosclerosis and cardiovascular risk in patients with prolactinoma were reported but have not been clarified yet.

Aim

Our study aims to compare prolactinoma patients with a control group in terms of lipid profile, body fat distribution, and subclinical atherosclerosis markers.

Methods

This single-center, prospective study included 32 patients diagnosed with prolactinoma and 32 control groups with similar clinical features. Patients newly diagnosed with prolactinoma were evaluated before and 6 months after treatment. Patient and control groups were compared according to their serum omentin-1 levels, lipid profile, body fat ratio, epicardial adipose tissue thickness (EATT), and carotid intima-media thickness (CIMT).

Results

25 of the patients were diagnosed with microprolactinoma, 7 with macroprolactinoma, 25 were female and 7 were male. Similar omentin-1 levels were found in prolactinoma and control groups ($P = 0.368$). A total of 20 patients, 15 female, and 5 male, were re-evaluated after the treatment. The mean omentin-1 levels of 20 patients evaluated six months after the treatment was not significantly different from the pre-treatment level ($P = 0.526$). The median EATT in the patient group which was higher than in the control group ($P = 0.021$) significantly regressed and was found similar to the control group six months after treatment ($P = 0.036$, $P = 0.248$; respectively). The median CIMT which was similar between patients and control groups ($P = 0.723$), was significantly regressed ($P = 0.040$) after treatment. In terms of median body fat rate, total cholesterol, low-density lipoprotein, high-density lipoprotein, and triglyceride levels were found to similar between patient and control groups ($P = 0.445$, $P = 0.079$, $P = 0.200$, $P = 0.056$, $P = 0.243$; respectively). In the control group, prolactin levels were negatively correlated with EATT, CIMT, BMI, waist-hip ratio, and age ($P = 0.025$, $P = 0.006$, $P = 0.029$, $P < 0.01$, $P = 0.021$; respectively).

Discussion

Increased EATT plays a role in the development of coronary and myocardial disease, as a result of inflammation and fibrosis. CIMT is commonly used in the follow-up of subclinical atherosclerosis. In our study, EATT was found significantly higher in untreated prolactinoma patients than in the control group while CIMT was found similar. After the treatment, EATT and CIMT values,