

Pituitary masses in Fribourg, Switzerland: A descriptive epidemiological study

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Pituitary masses are mostly benign adenomas and among the most common human neoplasms. Nevertheless, data on the incidence of pituitary masses are scarce. A population-based study in the sub-urban area of Fribourg reported a prevalence data of adenoma. However, the incidence of pituitary tumors in Switzerland is unknown.

We retrospectively created a database of all patients with pituitary-related diagnosis followed by the Department of Diabetology-Endocrinology at the Cantonal Hospital Fribourg from January 1st 2010, to December 31th 2018. A total of 50 patients were identified. The mean age at presentation was 49.7 years, with an overall male preponderance.

During the nine-year follow-up, the incidence rate (/100 000 inhabitants) increased from 0.4 in 2010 to 3.1 in 2018. 23 macroadenomas, 14 microadenomas, two apoplexy, four craniopharyngiomas, and three Rathke's cyst were diagnosed. Two patients presented an hypophysitis and two patients had an abnormally increased size of the pituitary gland without adenoma. Among the 39 pituitary adenomas, there were 25 nonfunctioning adenomas, ten prolactinomas, three growth hormone-secreting adenomas and one adrenocorticotrophic hormone-secreting adenoma.

At initial presentation, a quarter of patients had hormonal deficiencies, most commonly hypogonadism. Hypopituitarism is statistically associated with an increased size of the pituitary lesion.

To the best of our knowledge, this is the first epidemiological study on the incidence of clinically relevant pituitary masses during a nine-year period in a community hospital in Switzerland. Interestingly, an increase in the incidence over the nine-year follow-up was observed. This confirms for Switzerland the trend already described by other studies. Multicenter prospective studies are needed to evaluate the real world incidence of these conditions and to help allocate appropriate resources.

Jury:

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