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LETTER TO THE EDITOR

Epidemiology of insulinoma in Tunisia

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Insulinoma is a rare tumor. Its annual incidence varies from 1 to 4 cases per million in the United States [1–3] but has not been determined in the different populations. We conducted a retrospective study to evaluate the incidence, the epidemiological characteristics, and the prognosis of insulinoma in Tunisia. Our study is the first to determine the annual incidence of insulinoma in Tunisia. It concerned all cases of insulinomas diagnosed in Tunisia between April 1980 and April 2009. Search was carried out in all university centers including endocrinology, internal medicine, pediatric, and surgery departments in Tunis (6 centers), Sfax, Sousse, Monastir, and Mahdia. We analyzed epidemiological data and patient's medical records. Over the 29 years period, 21 patients with confirmed insulinoma were identified. So, the annual incidence of insulinoma in Tunisia was 0.1 case per million. This low incidence may be an underestimate because of the difficulties to find out all the cases of insulinoma. The patients were 10 females (47.6%) and 11 males (52.3%). Mean age at diagnosis was 46 years [8–80]. There was only one child in the series. Sex ratio and age at diagnosis were close to that described in other studies [1–5]. Mean diagnosis delay was 5 ± 6.9 years ranging from 4 months to 30 years. The initial presentation was neurogenic symptoms in 13 cases (62%), among them five (24%) with recurrent seizure. Insulinoma was diagnosed in a 49 years old woman with type 2 diabetes known for 14 years. Multiple endocrine neoplasia type I was not reported in our cases. Twenty patients were operated and follow-up data were available in 19 cases. The tumors were located at the head in 4 cases, at the body in 7 cases, and at the tail in 8 cases. The mean diameter was 25 mm, ranging from 3 to 115 mm. Eleven tumors measured 2 cm or more (52%). Insulinoma was multiple in one case (5%). Malignancy was present in three cases (18.7%). The operative mortality was 5.2% (one death secondary to biliary leakage). The recovery rate was 68.4% (13/19). Persistent hypoglycemia was reported in two cases (10.5%) among which one malignant insulinoma with metastasis. Recurrence was noted in three cases. With the results of this study, we can conclude that the incidence of insulinoma seems to be low in Tunisia. Due to the variability and the lack of specificity of clinical presentation, diagnosis of insulinoma was frequently delayed as indicated by the large size of the tumors. Malignancy was frequent. The cure rate was unsatisfactory.

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