Hyperprolactinemia: A 12-Year Retrospective Study at Gynecologic Endocrinology Unit, Siriraj Hospital
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Abstract

**Background:** Hyperprolactinemia is one of the most common endocrine disorders of the hypothalamic-pituitary axis. To date, no available data about hyperprolactinemia in Thai women has been published.

**Objective:** To determine clinical and laboratory findings of Thai female patients with different etiology of hyperprolactinemia, as well as the response of treatment, recurrence, and pregnancy after treatment.

**Material and Method:** Medical records of 139 female patients with the diagnosis of hyperprolactinemia in Gynecologic Endocrinology Unit, Siriraj Hospital between January 1, 1999 and December 30, 2011 were retrospectively reviewed after the study protocol was approved by Siriraj Institutional Review Board. The data was analyzed to determine patient demographic data, presenting symptoms, duration of symptoms, initial serum prolactin levels, causes, imaging studies, treatment, treatment outcomes, and adverse events.

**Results:** Ninety-seven female patients with hyperprolactinemia were included in the study. Mean age at diagnosis was 31.8±7.7 years. Amenorrhea was the most common presenting symptom (49.5%) followed by galactorrhea (44.3%). Median initial serum prolactin level was 117 ng/mL (25.1-1,624 ng/mL). Pituitary adenoma is the most common cause (40.2%) followed by idiopathic hyperprolactinemia (37.1%). Microadenomas were found in 74.3% of pituitary adenoma. The median size of the tumor was 9 mm. Medical treatment was given to 79 (88.8%) patients. Bromocriptine was given to 66 patients. Mean of maximum dose of bromocriptine was 5.8 mg. Median duration of treatment was 35.8 months. Adverse events were reported in 24.2% of patients, dizziness was the most common adverse event. Median time to normalize serum prolactin level was 3.8 months. In 29 patients who desired pregnancy, eight patients got pregnant. Median time to pregnancy was 25.9 months. Patients with macroadenoma had significantly higher prolactin level than those with microadenoma (p = 0.024). Patients with galactorrhea had the shortest duration of symptom (p = 0.010). Patients with pituitary adenoma needed higher doses and longer duration of treatment than those without a tumor. Normalization of prolactin level and recurrence rate was not different between the two groups (p = 0.56 and 0.374). Log rank test showed that the time to normalize and survival time of recurrence were not significantly different between patients with and without a tumor (p = 0.136 and 0.146, respectively).

**Conclusion:** Amenorrhea was the most common presenting symptom in Thai hyperprolactinemic females, who attended Siriraj gynecologic endocrinology unit, followed by galactorrhea. Pituitary adenoma is the most common cause followed by idiopathic hyperprolactinemia. Patients with pituitary adenoma needed higher doses and longer duration of treatment than those without a tumor.

**Keywords:** Hyperprolactinemia, Pituitary adenoma, Thai, Female