

A prolactinoma is a benign tumor of the pituitary gland (adenoma) that produces an excessive amount of the hormone prolactin. In women, hyperprolactinemia is characterized by irregular menstrual periods or even absence of periods, infertility and production of breast milk in women who are not pregnant (galactorrhea). The most common symptom in men is impotence. The cause of pituitary tumors is unknown. Most pituitary tumors are sporadic and not associated with genetic factors that are inherited or can be passed on to children. Pituitary tumors that produce enough prolactin to affect health occur in approximately 14 out of 100,000 people. All patients who are shown to have a pituitary adenoma on MRI or CT imaging should have a serum prolactin level checked and if their prolactin level is >150-200 ng/ml the patient likely harbors a prolactin secreting tumor which should be treated with a dopamine agonist medication rather than surgery. If the level is less, this could be due to a tumor <10 mm or lack of normal inhibition by hypothalamic dopamine which then permits the normal prolactin secreting cells to hypersecrete (stalk effect). The effect of certain medications, recreational drugs, macroprolactin (big prolactin molecule with no effect on the body), other medical conditions (like low thyroid function, hepatic or renal insufficiency) should be evaluated for these lower levels. A specialist consultation should be considered for such patients by an experienced endocrinologist. Prolactinoma is treated with medications that act like dopamine (dopamine agonists) such as bromocriptine, quinagolide and cabergoline because dopamine inhibits prolactin secretion. These medications reduce the size of the tumor and reduce the amount of prolactin secretion in approximately 80-90% of patients. Surgery may be recommended if medical therapy is not effective or bothersome side effects (dizziness, mental fogginess, nausea, vomiting). For both medical therapy and surgery, cure rates depend on the size and location of the tumor and the prolactinoma can recur in some affected individuals. Radiation therapy is sometimes used to control growth of a prolactinoma if no response to medications and not amenable to surgery.