Temporal Progress of Parathyroid Adenoma

To the Editor: The cause of hyperparathyroidism is unknown. Single gland involvement ("adenoma") occurs in about 80% of patients with hyperparathyroidism and "hyperplasia" in about 20%. Less than 2% of hyperfunctioning glands are malignant (1,2). The temporal progress of parathyroid adenoma is not known in literature. We report on a patient with hyperparathyroidism whose adenoma became obvious after two years.

Case: A 26-year-old woman was admitted to hospital because of fatigue and pain in her legs. In her history she had been well till her first pregnancy which had taken place three years before. She also had severe and long-lasting hyperemesis gravidarum during her pregnancy. In her past medical history, she had worn a dark gown covering her whole body. There was no history of chronic diarrhoea, smoking, alcohol, or use of medication. On her first physical examination, she had normal findings, except for minimal diffuse goiter. Complete blood count, and blood urea nitrogen, creatinine, transaminase, alkaline phosphatase, and albumin levels were normal but blood calcium was 6 mg/dl (8.0-10.6), inorganic phosphorus 2.2 mg/dl (2.5-4.5), serum 25 OH-D3 3.00 ng/ml (10.00-40.00), parathormon (PTH) 88.9 pg/ml (9-55), and urinary calcium 1.1 mg/dl (150-300). A thyroid ultrasonography showed both homogenous and minimal enlarged lobes. A computed tomography scan of the lower spinal axis and electromyographic investigation were normal. An osteomalasia diagnosis was made due to hyperemesis gravidorum and low exposure to the sun. Calcium and vitamin-D3 treatment were administered to the patient. Her clinical complaints improved in a few months.

After two years, her complaints of lower extremity pains resumed. The patient was admitted to the hospital for the second time. On her physical examination, there was no pathologic finding. Her blood calcium was 12.4 mg/dl, inorganic phosphorus 2.1 mg/dl, and PTH 1340 pg/ml. A bone mass density measurement by DEXA disclosed osteoporosis. A thyroid ultrasonography revealed a relatively hypoactive solid nodule on the left thyroid lobe, approximately 21 mm in diameter. This nodule was also confirmed by the cervical computed tomography and a parathyroid scan with Tc-99-MIDI. The patient underwent surgery. Pathologic examination of the specimen was benign parathyroid adenoma.

The presented case is an example in which the patient developed a 21-mm adenoma of parathyroid glands in 27 months. She may have had parathyroid adenoma, which was not at a detectable size on her first admittance, associated with osteomalasia.

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