Polymyalgia rheumatica as the first presentation of parathyroid carcinoma

Sir,

Parathyroid carcinoma is a rare neoplasm. Parathyroid carcinoma accounted for only 0.005% of cases reported to the National Cancer Database between 1985 and 1995.[1] Polymyalgia rheumatica is infrequently the initial manifestation of underlying malignancy.[2]

A 57-year-old female patient presented with weakness and a 2 months history of progressive pain, stiffness involving her bilateral shoulders. She had morning stiffness. Physical examination was unremarkable, except for restriction of shoulder and hip movement due to pain. The patient's laboratory results showed erythrocyte sedimentation rate (ESR) value of 102 mm/h, C-reactive peptide (CRP) value of 12 mg/dl (reference range 0-4 mg/dl), serum calcium (Ca) value of 12.4 mg/dl (reference range 8.4-10.2 mg/dl). Serum parathormone (PTH) was reported as 848 pg/ml (reference range 15-65 pg/ml), and the patient's condition was concluded to be primary hyperparathyroidism. Her parathyroid ultrasonography revealed a well-defined lesion localized at the right lobe inferior pole posterior sized 28 × 22 mm with regularly contour. In parathyroid scintigraphy, the late images taken 2 hours after the injection of 25mCi Tc-99m MIBI revealed focal sestamibi retention in the zone corresponding to the thyroid right lobe lower pole inferior. In the surgical material, sized 6 × 2 × 0.7 cm weighing 4 g, tumor cell clusters penetrating into the capsule and within extracapsular blood vessels were identified. The pathology result was considered as a parathyroid carcinoma. Initially, patient's shoulder pain was thought to be associated with metastatic disease. But, metastasis wasn't detected. The reasons suggesting PMR: First, the patient's age is > 50 years, second, pain and limitation in bilateral shoulder girdle, third, ESR value of >50 mm/h and CRP elevation, also duration of the symptoms longer than 2 weeks.[3] 16 mg/day methylprednisolone therapy was initiated. Patient's complaints were prominently regressed after the second day of treatment. In the second month of PMR therapy, the patient had no complaints and ESR; CR*P* values were within the normal range. Serum calcium level was value of 9.5 mg/dl, PTH level was value of 62 pg/ml in the twelfth month postoperative follow-up. Prednisolone treatment was discontinued beginning from twelfth month, reducing the dose. At sixth month of follow-up after treatment, symptoms and signs related to PMR did not repeated.

Most patients with parathyroid carcinoma (90%) present with symptoms, including severe hypercalcemia, an elevated serum PTH level, nephrolithiasis or nephrocalcinosis, osteopenia, osteoporosis, pathologic fractures, bone pain, gastrointestinal disturbances, depression, fatigue, or memory disturbance.[1] Polymyalgia

rheumatica is a clinical syndrome characterized by pain and stiffness in the neck, shoulders, and hips, fatigue, weight loss and low-grade fever and also rarely presented as a paraneoplastic manifestation. There are no specific diagnostic tests for PMR.[3] Cancer-associated rheumatic disorders may represent a paraneoplastic phenomenon, i.e., occur at a distance from the primary tumor or metastases and be induced by the malignancy through mediators such as hormones, peptides, and antibodies. Case reports present a possible association of polymyalgia rheumatica with breast cancer, colon cancer, lymphoma, acute myeloid leukemia, prostate cancer.[2,4,5] Association between parathyroid cancer and PMR has not been reported in the literature previously. We want to emphasize that PMR may present as the first sign of parathyroid carcinoma.

Mustafa Unubol, Beyza Genc Cetin[1], Aykut Soyder[2], Engin Guney

Adnan Menderes University Medical Faculty, Department of Internal Medicine, Division of Endocrinology, [1]Department of Internal Medicine, [2]Department of General Surgery, Aydın, Turkey

Corresponding Author: Dr. Mustafa Unubol, Adnan Menderes University Medical Faculty, Department of Internal Medicine, Division of Endocrinology, 09100 Aydin, Turkey. E-mail: drmunubol@yahoo.com.tr

References

1. Hundahl SA, Fleming ID, Fremgen AM, Menck HR. Two hundred eighty-six cases of parathyroid carcinoma treated in the U.S. between 1985–1995: A National Cancer Data Base Report. Cancer 1999;86:538-44.
2. Keith MP, Gilliland WR. Polymyalgia rheumatica and breast cancer. J Clin Rheumatol 2006;12:199-200.
3. Dasgupta B, Salvarani C, Schirmer M, Crowson CS, Maradit-Kremers H, Hutchings A, *et al.*, Members of the American College of Rheumatology Work Group for Development of Classification Criteria for PMR. Developing classification criteria for polymyalgia rheumatica: Comparison of views from an expert panel and wider survey. J Rheumatol 2008;35:270-7.
4. Kampitak T. Polymyalgia rheumatica as the first presentation of metastatic lymphoma. Intern Med 2010;49:1641-3.
5. Haugeberg G, Dovland H, Johnsen V. Increased frequency of malignancy found in patients presenting with new-onset polymyalgic symptoms suggested to have polymyalgia rheumatica. Arthritis Rheum 2002;47:346-7.

Access this article online	
Quick Response Code:	Website: www.ijem.in
	DOI: 10.4103/2230-8210.109683