Pheochromocytoma, papillary thyroid carcinoma

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ABSTRACT

وصف حالة مريض يبلغ من العمر 53 عام ويعاني من ارتفاع شديد وغير مستقر في ضغط الدم بالرغم من علاجه بثلاثة أنواع من الأدوية الخافضة لضغط الدم. بينت الأشعة الصوتية والأشعة الطبقية وجود عقدة في الغدة الدرقية بحجم 1.8 سم، أثبتت نتيجة الخزعة من العقدة وجود سرطان الغدة الدرقية الحليمي. كانت النتائج المخبرية من وظائف الغدة الدرقية، كالستونين، الكالسيوم، هرمون الغدة الجار درقية في المستوى الطبيعي. في حين كان معدل الميتانفرين في البول المجمع لمدة 24 ساعة ثلاثة مرات أعلى من المعدل الطبيعي. وجد ورم الغدد الصم العصبي من الغدة الكظرية عند عمل أشعة (131I-MIBG). استؤصلت الغدة الكظرية والغدة الدرقية جراحيا. كانت النتيجة النهائية لتحليل أنسجة باثولوجيا ورم الغدد الصم العصبية من الغدة الكظرية وسرطان الغدة الدرقية الحليمي. كان التحليل المخبري للطفرة الجينية (c-ret proto-oncogene) سلبيا. تمثل هذه حالة نادرة لورمين بمريض واحد.

A 53-year-old woman presented with labile and difficult to control hypertension on 3 deferent anti hypertensive medications. Abdominal computed tomography (CT) and ultrasonography of the thyroid gland showed a 1.8 cm thyroid nodule. Fine needle aspiration biopsy of the thyroid nodule revealed papillary thyroid carcinoma. Serum thyroid stimulating hormone and free thyroxine, calcitonin, carcinoembryonic antigen, intact parathyroid hormone, and calcium levels were within normal limits. A 24-hour urine metanephrine showed significant elevation in urine metanephrine of approximately 3 times the upper limit of normal, and the result of 131I-metaiodobenzyleguanjdjne (131I-MIBG) scintography confirmed that the adrenal mass was pheochromocytoma. Right adrenalectomy and total thyroidectomy were performed. The final pathology was pheochromocytoma and papillary thyroid carcinoma. An analysis of c-ret porto-oncogene mutation yielded a negative result. This unusual association of 2 tumors represents a new entity.

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Pheochromocytoma is a rare, catecholamine-secreting tumor arising from chromaffin cells of the adrenal medulla that represents a potentially curable form of endocrine hypertension. The estimated incidence ranges from 0.005-0.1% of the general population, and from 0.1-0.2% of the adult hypertensive population.[1] While pheochromocytomas, occur most commonly as sporadic tumors, approximately 17-25% of pheochromocytomas occur through autosomal dominant inheritance either independent or as part of a familial syndrome. There are 8 defined genetic syndromes for hereditary pheochromocytomas and paragangliomas. Four of these, neurofibromatosis type I (NF1), von Hippel-Lindau (VHL), multiple endocrine neoplasia type 1 (MEN1), and MEN2, are disorders composed of multiple tumor types; the other 4, parasympathetic paragangliomas (PGLs) have parasympathetic paragangliomas, and/or pheochromocytomas, or sympathetic paragangliomas as their only type of tumor manifestation.[2] Association of medullary thyroid carcinoma with pheochromocytoma is well known in MEN type 2A (MEN 2A, Sipple's syndrome).[3] The syndrome is caused by germline mutations of the c-ret proto-oncogene, which are mostly (80-96%) found in RET exons 10, 11, and 16.[4] However, the association between papillary thyroid carcinoma (PTC) and pheochromocytoma is rare. To date, fewer than 11 cases of pheochromocytoma associated with PTC have been reported, and the relationship between these 2 tumors remains unclear.[5,6] We present a case of a