A Case of Mixed Medullary Follicular Cell Carcinoma Diagnosed with High Serum Carcinoembryonic Antigen Levels

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Papillary and follicular carcinomas arise from thyroid follicle cells, whereas medullary carcinoma originate in parafollicular cells. Since the origin of these tumor types differs, their coexistence within the same thyroid gland is rare. Mixed medullary follicular cell carcinoma is a tumor in which a follicular tumor (papillary carcinoma or follicular carcinoma) and medullary carcinoma are intermingled in the same tumor, and is furthermore considered to be a very rare disease. We report herein on a case of mixed medullary follicular cell carcinoma in which high serum Carcinoembryonic antigen (CEA) levels offered a diagnostic method.

A 66-year-old woman was introduced to our hospital with high CEA levels, and a tumor of left thyroid lobe with involvement of multiple lymph nodes of the left supraclavicular fossa was discovered on CT images. We operated on the tumor under the diagnosis of a medullary carcinoma based on the high CEA and calcitonin levels. The postoperative pathology result was mixed medullary follicular cell carcinoma. Both CEA and calcitonin levels quickly normalized after the operation, and at the time of writing no recurrence of the tumor has been seen.

Keywords: mixed medullary follicular cell carcinoma, CEA, calcitonin

References
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a: Operation specimen findings
b: Histopathologic examination (H&E staining)

a: Histopathologic examination showing the boundary part of the papillary and medullary (H&E staining)
b: Histopathologic examination showing the boundary part of the papillary and medullary (calcitonin staining)