

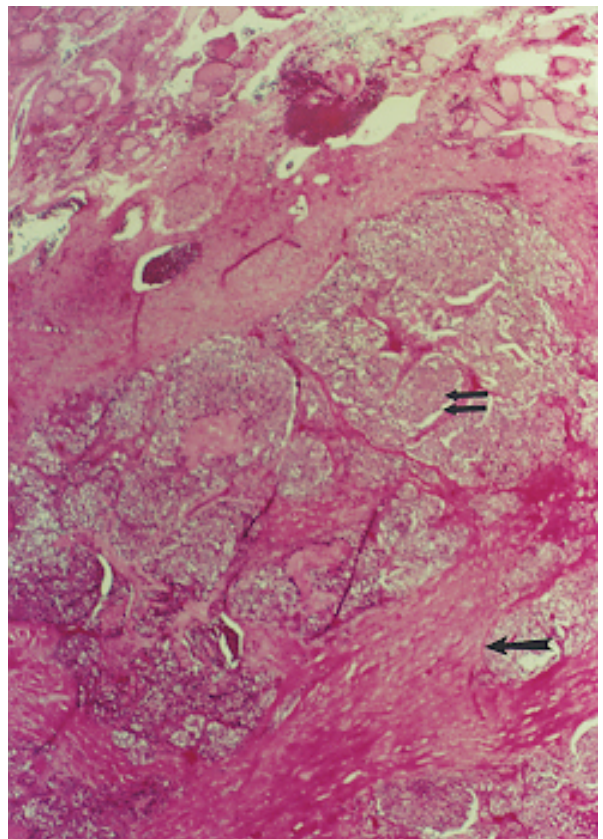
THYROID MEDULLARY CARCINOMA

This cancer occurs in both sporadic (mean age 50 years) and familial (mean age 20 years) forms. Along with hyalinized collagen, amyloid is conspicuous in the stroma in many forms. The tumor extends slowly by direct invasion into adjacent soft tissues and by metastasis to nodes, lung, liver and bone. Usually the first sign is a metastatic cervical node or a thyroid nodule. By scintiscan a cold nodule is present.

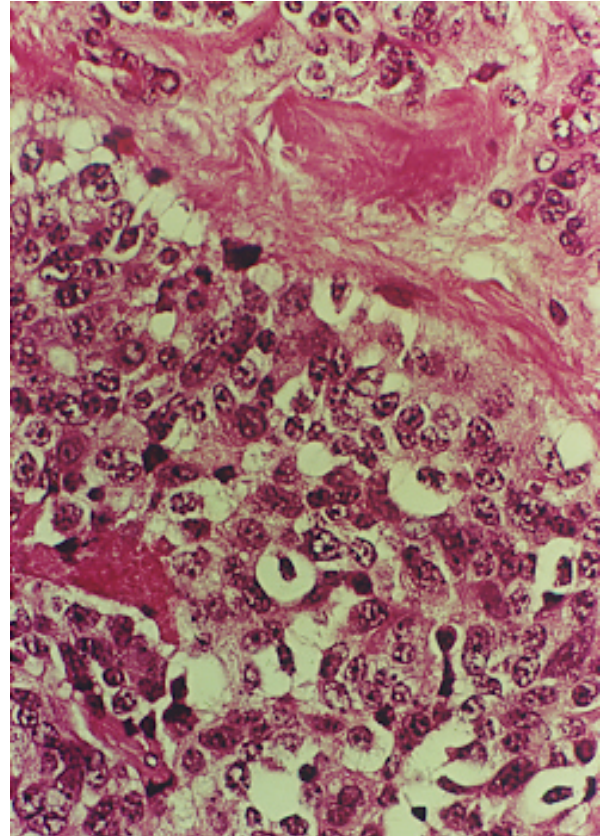
Microscopically there are bands of collagen traversing the tumor with amyloid found in some of the connective tissue septa and elsewhere in the tumor. The pathologic diagnosis is made without equivocation by having positive staining of tumor cells with antibody to calcitonin.

Cells are oval or polygonal, granular, with small amounts of cytoplasm. Small vessels are abundant. Mitoses are rare.

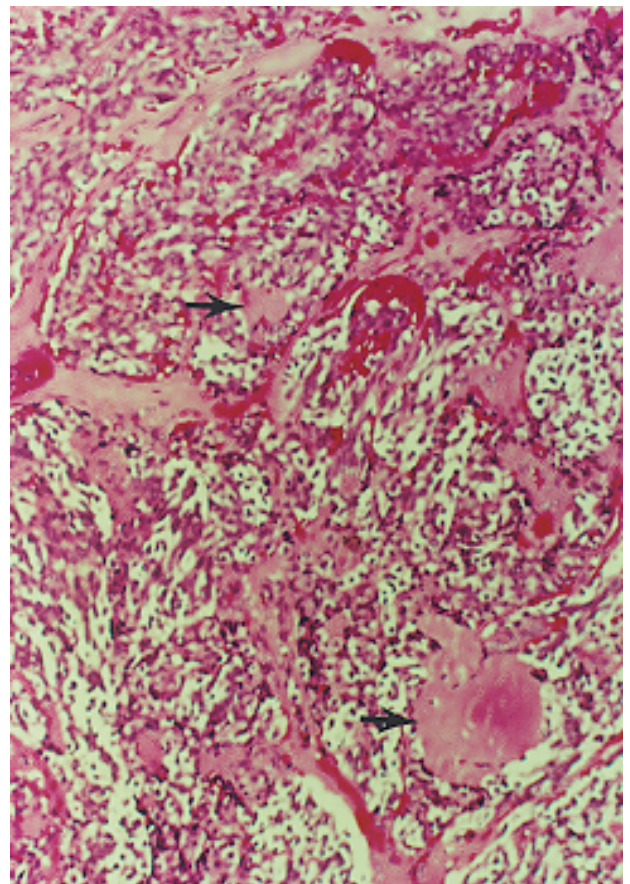
Medullary carcinoma. Hyalinized bands of collagen (large arrow) are seen in many of these tumors and there may be amyloid deposits in the hyaline material. This tumor has a lobular pattern (small double arrows).



Medullary carcinoma. Many of the cells have coarsely clumped chromatin, nucleoli are prominent and there is moderate amount of granular cytoplasm.



Medullary carcinoma. The homogenous eosinophilic-staining areas are amyloid (arrows), a common component of medullary carcinoma.



CLINICAL ASPECTS

Treatment of medullary carcinoma is total thyroidectomy and in most large studies the five year survival rates are 60-70 percent. Medullary carcinomas may occur in association with multiple endocrine neoplasia syndrome (MEN), type II.