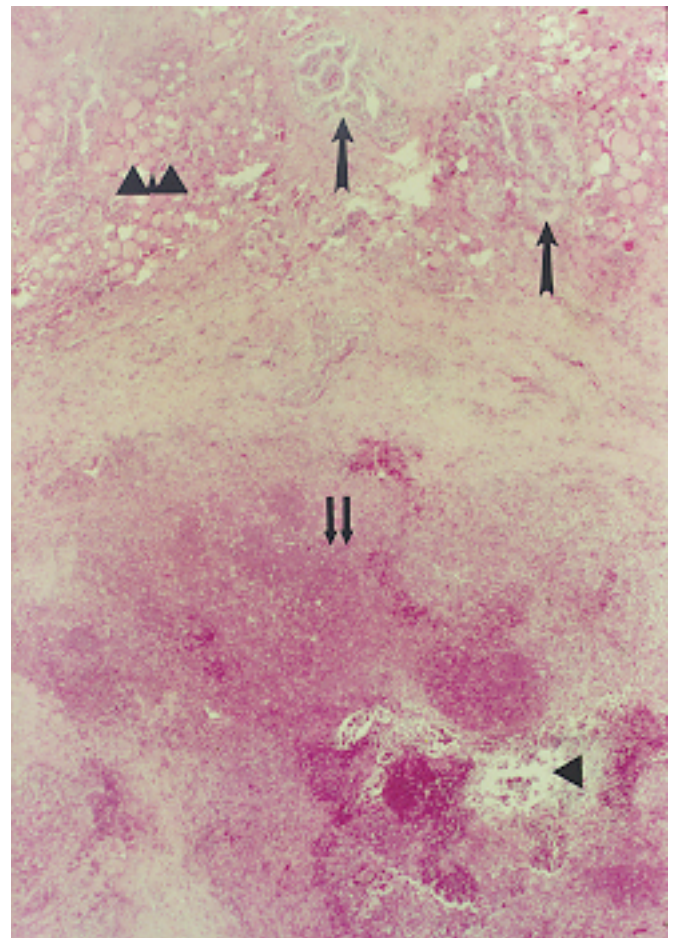


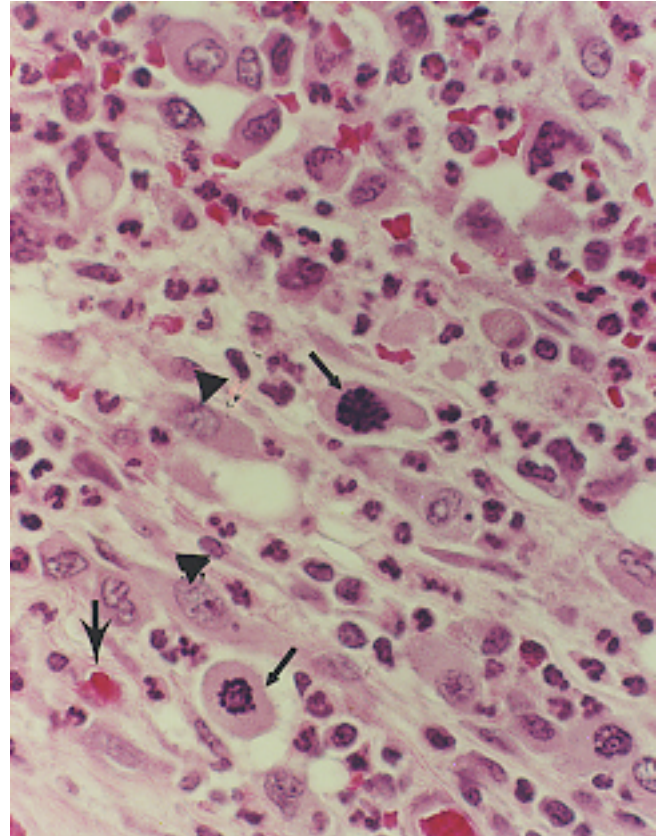
THYROID ANAPLASTIC (UNDIFFERENTIATED) CARCINOMA

Undifferentiated (anaplastic) thyroid carcinoma is a highly malignant tumor of the elderly, especially women. There is a rapidly enlarging neck mass and, in about half the cases, symptoms of compression such as dyspnea, dysphagia and hoarseness. Microscopically, there are squamoid, spindle cell, and giant cell types, and any of these cells may be very bizarre. Features common to all three types are high mitotic activity, large foci of necrosis, a marked degree of invasiveness both within the gland and in extrathyroidal structures. These tumors invade adipose tissue and skeletal muscle and sometimes even ulcerate through the skin. Muscle invasion in the form of tumor thrombi is common.

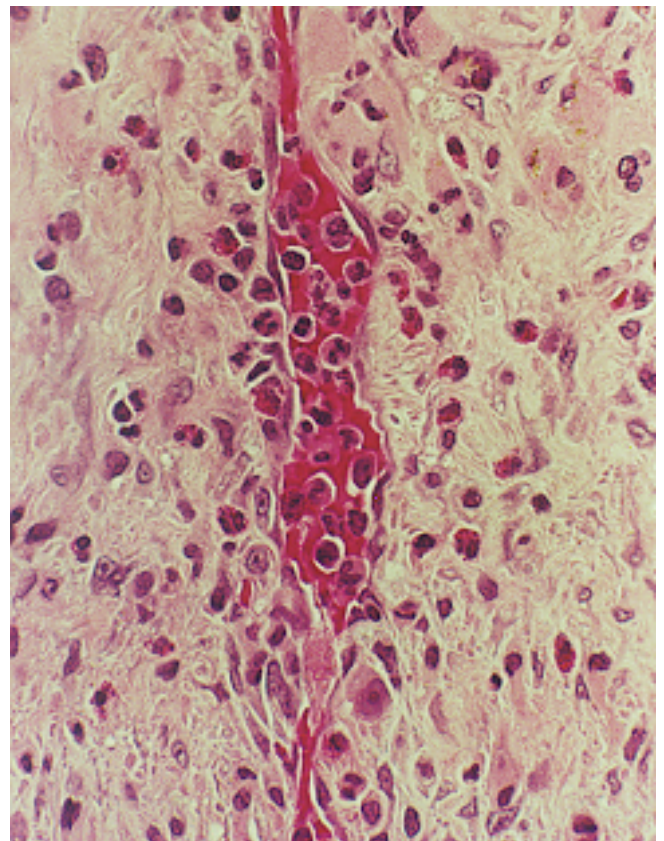
Anaplastic carcinoma, thyroid, showing both a papillary carcinoma (large single arrows) and anaplastic carcinoma (small double arrows). Some normal thyroid remains (double triangles). Single triangle is an area of necrosis, a prominent finding in these tumors.



Anaplastic carcinoma, thyroid, high power. Two markedly abnormal mitoses stand out (small arrows). There are numerous small blood vessels (large arrow) which hasten the hematogenous spread of this tumor. Large thick spindle cells and oval and polyhedral cells with large nuclei (triangles).



Anaplastic carcinoma, thyroid. Malignant tumor cells are invading a blood vessel.



CLINICAL ASPECTS

Some feel that earlier external radiation of pre-existing lower grade carcinoma may cause this extremely aggressive carcinoma—at least the association of such previous carcinomas and anaplastic carcinoma is common. The prognosis is extremely poor in all cases with perhaps 5 percent surviving 5 years.