

Malignant tumours

Malignant tumours

The vast majority of primary malignancies are carcinomas derived from the follicular cells (Table 55.6). Such tumours were thought of as differentiated (papillary , follicular and Hürthle cell) and undifferentiated (anaplastic). However, now an intermediate class of 'poorly differentiated carcinoma' is recognised, which is likely to represent a state of dedifferentiated – between classic differentiated and undifferentiated diseases. The parafollicular C cells can undergo malignant transformation into medullary carcinoma, and thyroid lymphoma is another primary thyroid malignancy . In addition, the thyroid can be involved by direct spread from surrounding structures (larynx and oesophagus) or metastases (most commonly from renal cell carcinoma). Lymph node and blood-borne metastases of thyroid cancer occur primarily to bone and lung and may be the mode of presentation (Figure 55.22).

Aetiology of malignant thyroid tumours The great majority of thyroid cancers have no known aetiological factor. The most important identifiable aetiological factor in differentiated thyroid carcinoma (particularly papillary) is irradiation of the thyroid under 5 years of age. In the town of Gomel, Ukraine , the incidence of childhood thyroid cancer rose from <1 per million to 96 per million following the Chernobyl nuclear disaster. Short latency aggressive PTC is associated with the *ret* / *PTC3* oncogene and later developing, possibly less aggressive, cancers with *ret* / *PTC1* . The incidence of follicular carcinoma is high in endemic goitrous areas, possibly because of TSH stimulation. Malignant lymphomas sometimes develop in autoimmune thyroiditis, and the lymphocytic infiltration in the autoimmune process may be an aetiological factor.

Figure 55.21 Isolated swelling in the upper pole of the right thyroid lobe.

Malignant tumours

The vast majority of primary malignancies are carcinomas derived from the follicular cells (Table 55.6). Such tumours were thought of as differentiated (papillary , follicular and Hürthle cell) and undifferentiated (anaplastic). However, now an intermediate class of 'poorly differentiated carcinoma' is recognised, which is likely to represent a state of dedifferentiated – between classic differentiated and undifferentiated diseases. The parafollicular C cells can undergo malignant transformation into medullary carcinoma, and thyroid lymphoma is another primary thyroid malignancy . In addition, the thyroid can be involved by direct spread from surrounding structures (larynx and oesophagus) or metastases (most commonly from renal cell carcinoma). Lymph node and blood-borne metastases of thyroid cancer occur primarily to bone and lung and may be the mode of presentation (Figure 55.22).

Aetiology of malignant thyroid tumours The great majority of thyroid cancers have no known aetiological factor. The most important identifiable aetiological factor in differentiated thyroid carcinoma (particularly papillary) is irradiation of the thyroid under 5 years of age. In the town of Gomel, Ukraine , the incidence of childhood thyroid cancer rose from <1 per million to 96 per million following the Chernobyl nuclear disaster. Short latency aggressive

PTC is associated with the ret / PTC3 oncogene and later developing, possibly less aggressive, cancers with ret / PTC1 . The incidence of follicular carcinoma is high in endemic goitrous areas, possibly because of TSH stimulation. Malignant lymphomas sometimes develop in autoimmune thyroiditis, and the lymphocytic infiltration in the autoimmune process may be an aetiological factor.

Figure 55.21 Isolated swelling in the upper pole of the right thyroid lobe.

Revision #1

Created 2025-12-31 15:20:51 UTC by Omar Ayman

Updated 2025-12-31 15:20:51 UTC by Omar Ayman