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Item 502

The chest x-ray and chest computed tomographic (CT) scan demonstrate an anterior mediastinal mass. The differential diagnosis of anterior mediastinal masses includes thymoma, pericardial cyst, lymphoma, germ cell neoplasm, aneurysm, lipoma, parathyroid tumor, and parasternal hernia. Klinefelter's syndrome (XXY chromosomal karyotype) is associated with the increased risk of both gonadal and extradonadal germ cell neoplasms, often located in the anterior mediastinum. These germ cell neoplasms include benign and malignant teratomas, seminomas, embryonal cell carcinomas, choriocarcinoma, and endodermal sinus tumors. Teratomas consist of mixtures of well-differentiated adult tissue types of ectodermal, mesodermal, and endodermal origins. Teratomas often have a single or multicystic configuration. The radiologic finding of mature bone or a tooth in an anterior mediastinal tumor (as seen in the imaging studies of this patient) strongly supports the diagnosis of teratoma.

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