

Disease of the pineal gland

Diseases of the pineal gland include cysts, calcifications and tumors.

Cysts

Cysts of the pineal gland are mostly asymptomatic. However, larger cysts can compress surrounding structures. They occur most often in young women.

Calcification

Calcified formations - the so-called brain sand (*corpora arenacea*) commonly occur with increasing age. These are protein formations in which calcium salts are stored.

Tumors

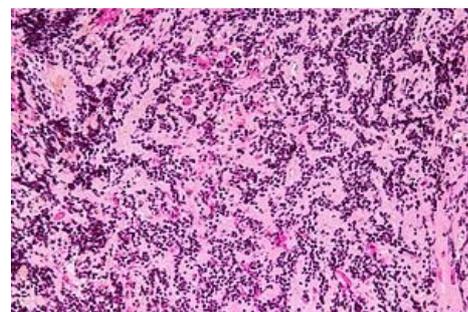
Pineal tumors (pinealomas) are rare. Most (50-70%) originate from isolated embryonic germ cells. Tumors that are from cells of the parenchyma of the pineal gland - pinealocytes, are called pineocytoma and pineoblastoma. **Pineocytoma** (pinealocytoma) is a slow-growing benign tumor. **Pineoblastoma** is a fast-growing high-grade tumor.

Germ cell tumors

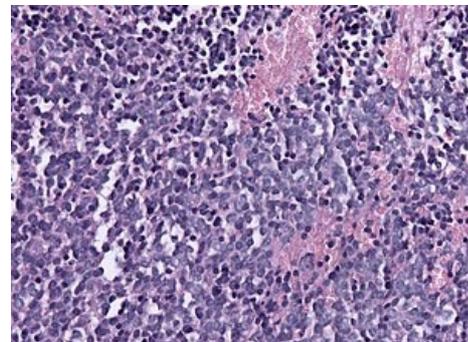
They most often take the form of a germinoma, resembling a testicular seminoma or an ovarian dysgerminoma. Other types according to germ cell differentiation are embryonal carcinoma, choriocarcinoma and, rarely, teratomas.

Tumors of the pineal parenchyma

These lesions originate from specialized cells of the pineal gland (pinealocytes) that have features of neuronal differentiation. **Pineocytomas** are highly differentiated lesions with areas of neuropil, cells with a small round nucleus and no evidence of mitosis or necrosis. **Pineoblastoma** is a high-grade variant with little sign of neuronal differentiation, densely packed small cells with necrosis and a number of mitoses. High-grade tumors of the pineal gland occur in children, while low-grade lesions more often affect adults. Highly aggressive pineoblastoma often spreads through the cerebrospinal fluid.



Pineocytoma



Pineoblastoma

Links

Related Articles

- Pineal gland
- Germline tumors
- Calcification (pathology)

References [edit | edit source]

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- WHITEHEAD, MT, C OH and A RAJU, et al. Physiologic pineal region, choroid plexus, and dural calcifications in the first decade of life. *AJNR Am J Neuroradiol* [online] . 2015, vol. 36, no. 3, pp. 575-80, also available from < <https://www.ncbi.nlm.nih.gov/pubmed/25355815> >. ISSN 0195-6108 (print), 1936-959X.