

Pineal region tumors Management

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فرع الجراحة

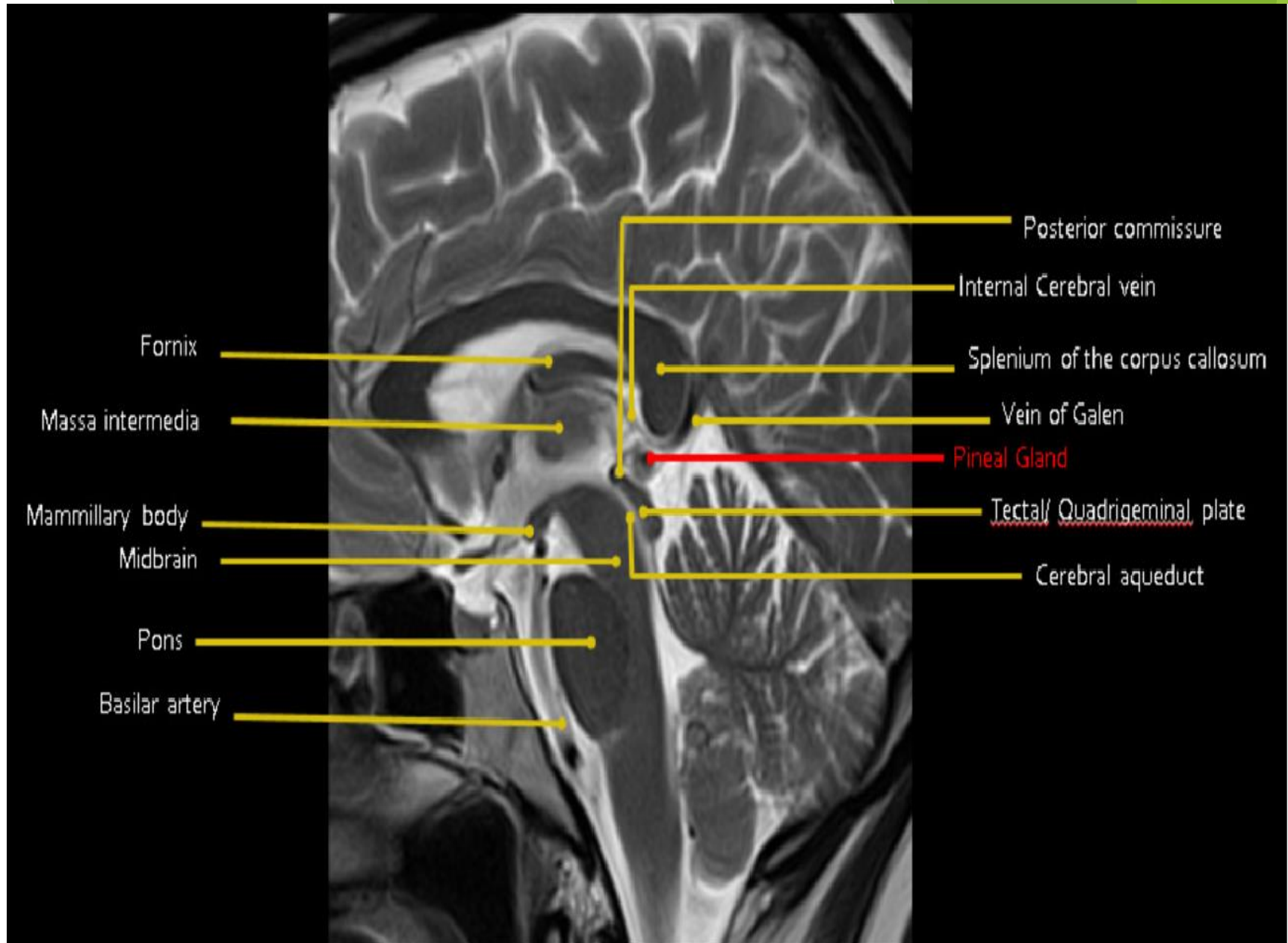
كلية طب الكندي

objectives

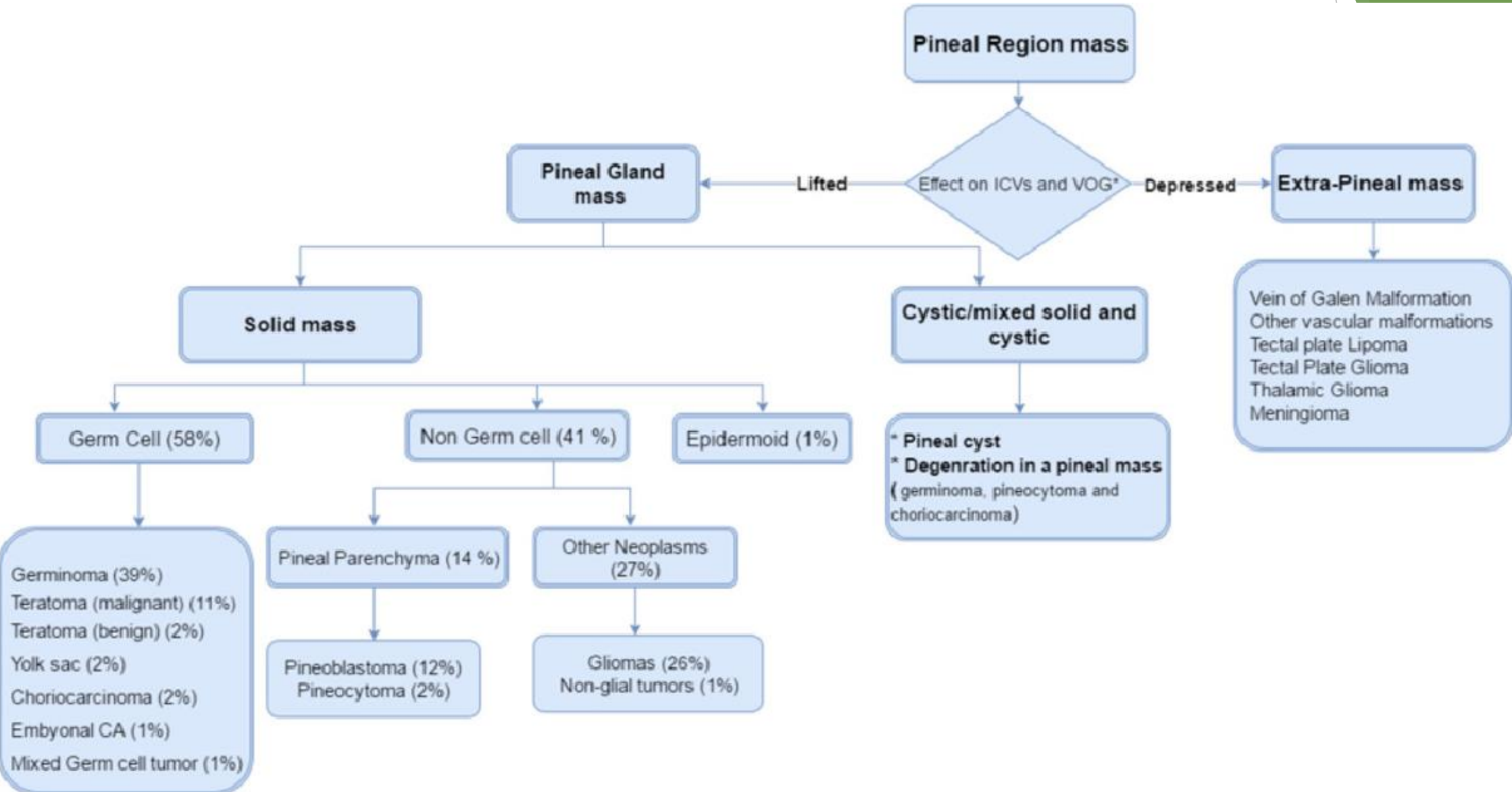
- ▶ increase awareness among healthcare providers about the
 1. clinical features
 2. diagnostic workup
 3. management of Pineal region tumors.

Anatomy

- ▶ **Dorsally** by the splenium of the corpus callosum
- ▶ **Ventrally** by the quadrigeminal plate and midbrain tectum,
- ▶ **Rostrally** by the posterior aspect of the 3rd ventricle
- ▶ **Caudally** by the cerebellar vermis.

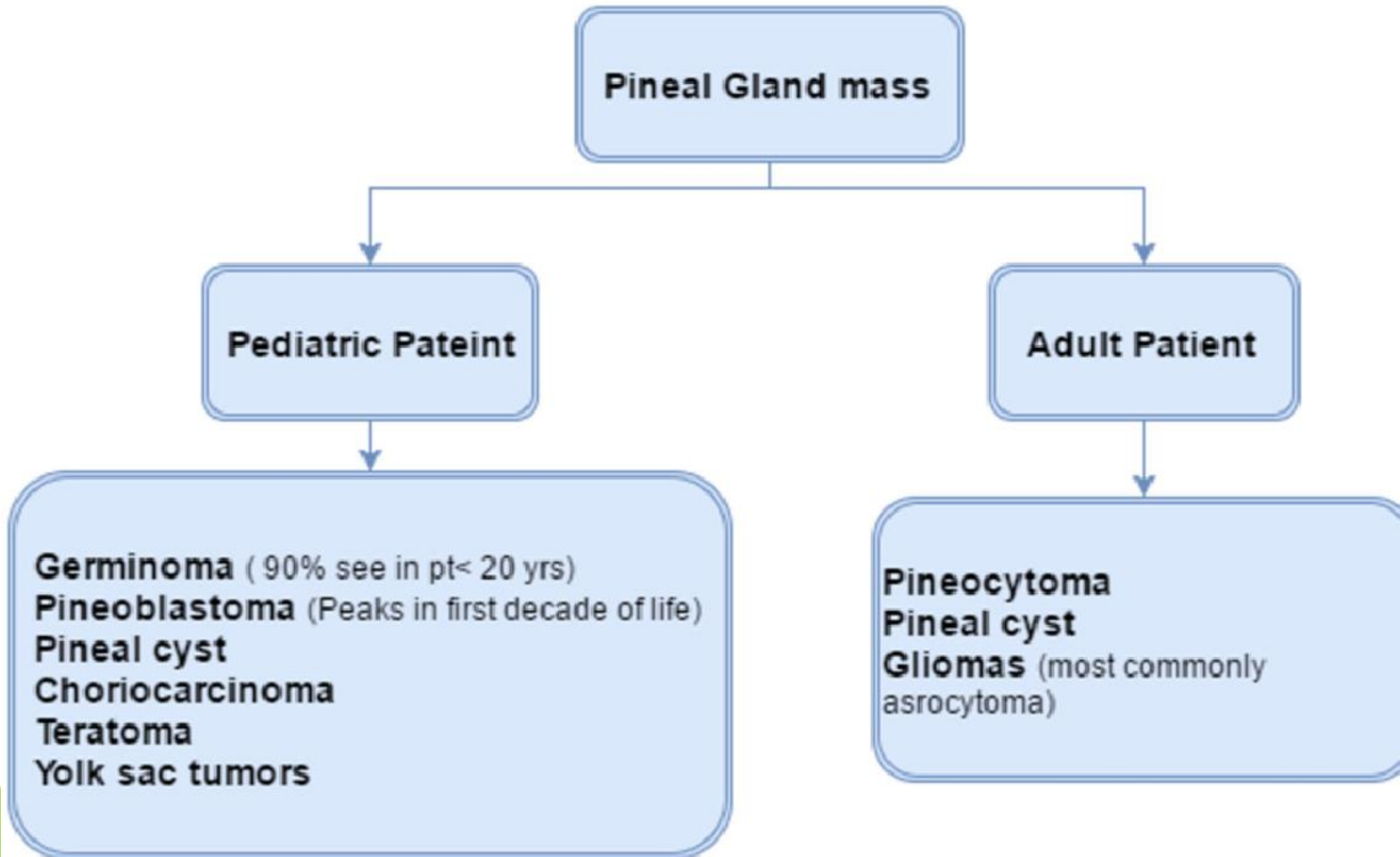


Epidemiology & Differential Diagnosis



*Internal cerebral veins and Vein of Galen

Age Distribution



Clinical presentation

A. Raised intracranial pressure

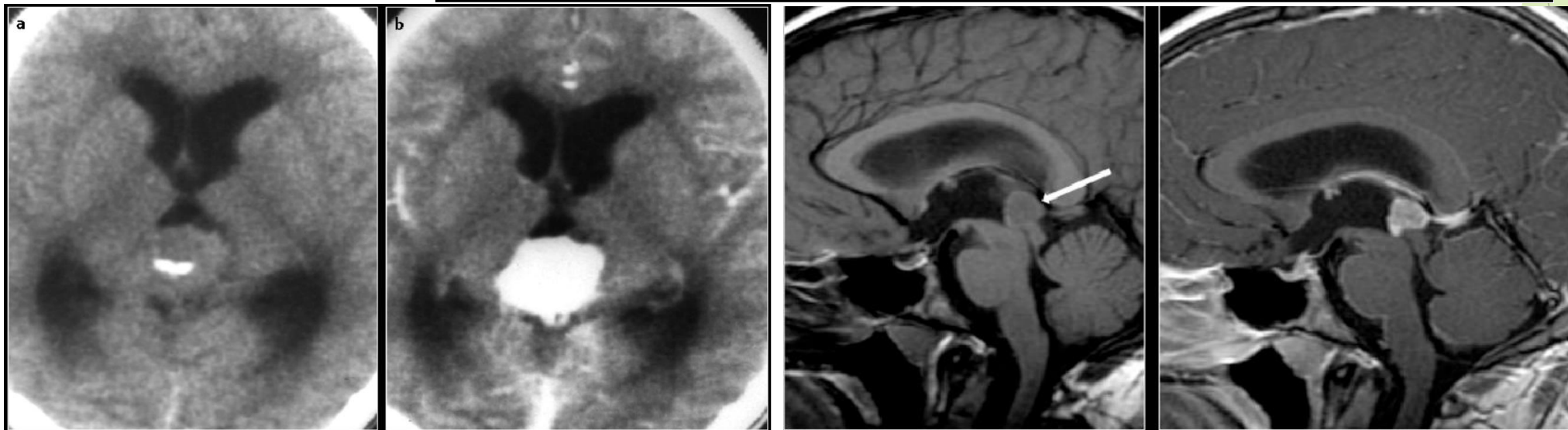
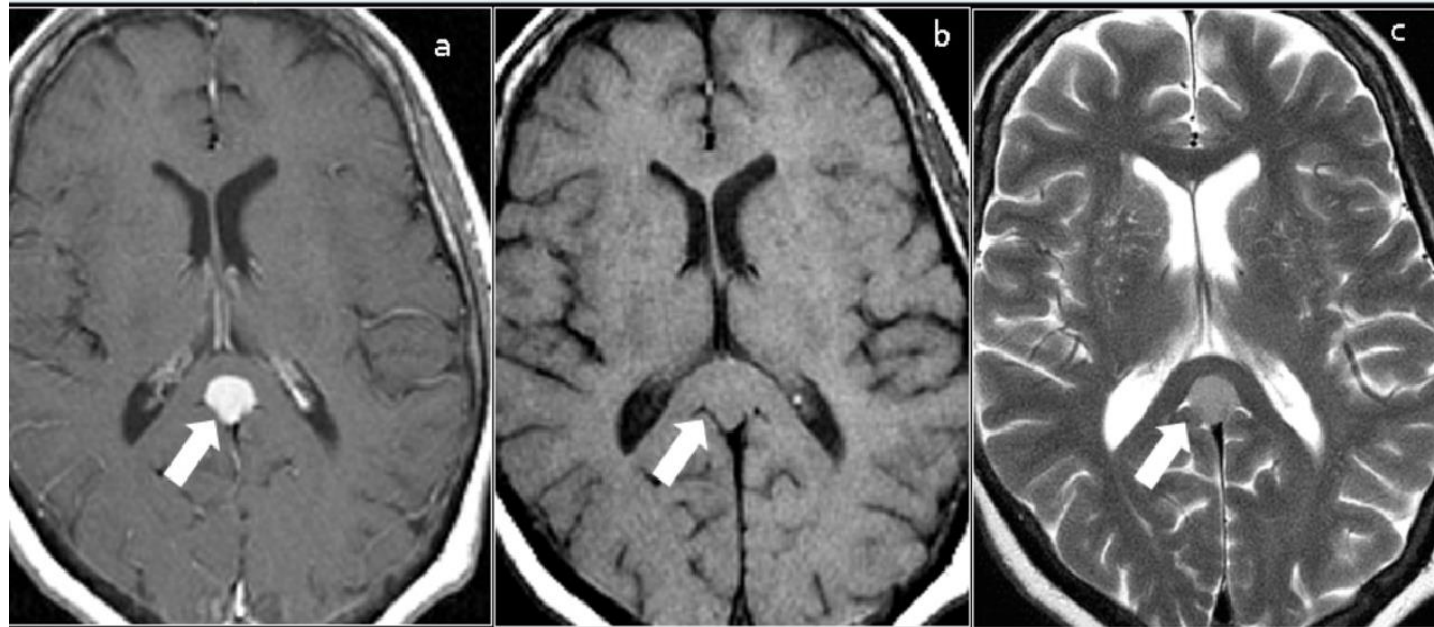
1. Headache
2. Vomiting
3. Disturbed level of consciousness
4. 6th nerve palsy
5. Papilledema

B. Focal neurological signs.

c. Incidental findings

Diagnostic Workup & Management

- ▶ Brain CT scan
- ▶ Brain MRI
- ▶ CSF tumor marker

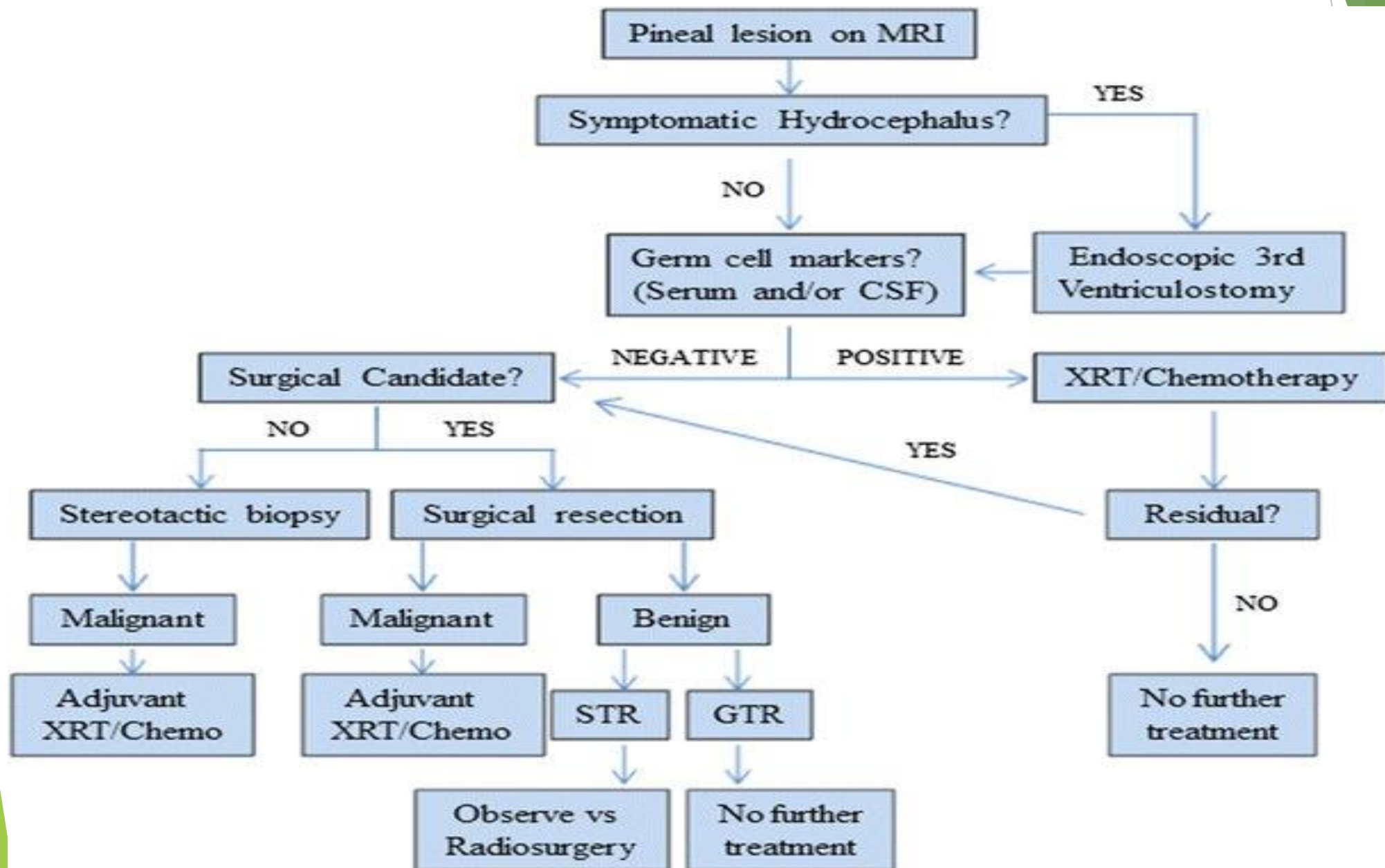


CSF tumor markers

	β -HCG	α -FP	PLAP
Teratoma	–	–	\pm
Germinoma (Pure)	\pm (weak)	–	\pm
Germinoma (syncytiotrophoblastic)	+	–	\pm
Choriocarcinoma	++	–	\pm
Mixed germ cell	++	++	\pm
Endodermal sinua	\pm	++	\pm
Embryonal carcinoma	\pm	\pm	\pm

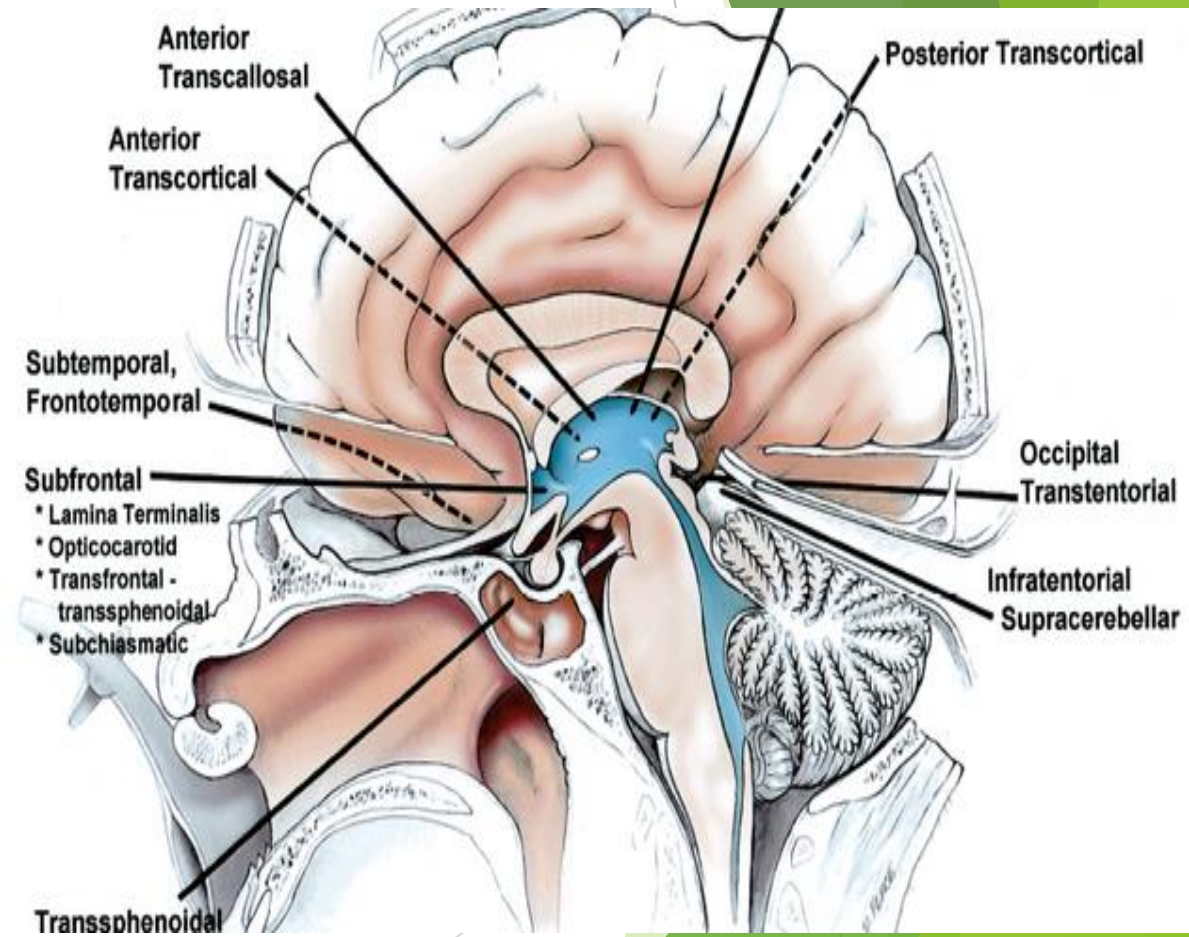
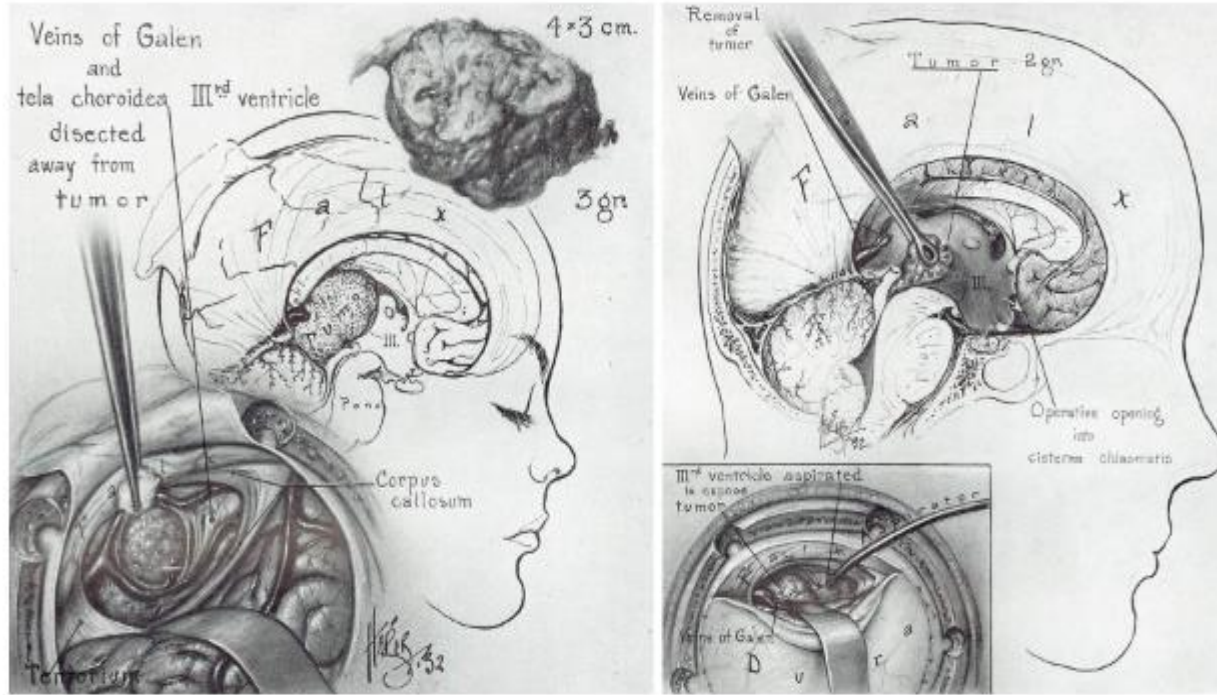
Legend β -HCG = beta-human-chorionic gonadotropin
 α -FP = alpha-fetoprotein
PLAP = placental alkaline-phosphatase

Management Algorithm



Main Surgical Approaches

Posterior Interhemispheric Transcallosal Intervenous/Paravenous Variant





**Not all pineal tumors
need surgical
interventions**