Parasellar lesion

The parasellar region, located around the sella turcica, is an anatomically complex area representing a crossroads for important adjacent structures. Several lesions -including tumoral, inflammatory vascular- and infectious diseases may affect this area. Although invasive pituitary tumors are the most common neoplasms encountered within the parasellar region, other tumoral (and cystic) lesions can also be detected. Craniopharyngiomas, meningiomas, as well as Rathke's cleft cysts, chordomas, and ectopic pituitary neuroendocrine tumors can primarily originate from the parasellar region. Except for hormone-producing ectopic pituitary tumors, signs and symptoms of these lesions are usually nonspecific, due to a mass effect on the surrounding anatomical structures (i.e. headache, visual disturbances), while a clinically relevant impairment of endocrine function (mainly anterior hypopituitarism and/or diabetes insipidus) can be present if the pituitary gland is displaced or compressed. Differential diagnosis of parasellar lesions mainly relies on magnetic resonance imaging, which should be interpreted by neuroradiologists skilled on base skull imaging. To date, neurosurgery is the main treatment, alone or in combination with radiotherapy. Of note, recent studies have identified gene mutations or signaling pathway modulators that represent potential candidates for the development of targeted therapies, particularly for craniopharyngiomas and meningiomas. In summary, parasellar lesions still represent a diagnostic and therapeutic challenge. A deeper knowledge of this complex anatomical site, the improvement of imaging tools, as well as novel insights in the pathophysiology of presenting lesions are strongly needed to improve the management of parasellar lesions [1].

Parasellar tumors

see Parasellar tumor.

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Gatto F, Perez-Rivas LG, Olarescu NC, Khandeva P, Chachlaki K, Trivellin G, Gahete MD, Cuny T. Diagnosis and Treatment of Parasellar Lesions. Neuroendocrinology. 2020 Mar 4. doi: 10.1159/000506905. [Epub ahead of print] Review. PubMed PMID: 32126547.