Twenty-one cases of pituicytoma were collected at the First Affiliated Hospital of Nanjing Medical University and Jinling Hospital, from 2009 to 2020. The clinical data of 21 pituicytoma patients was retrospectively analyzed, and the relevant literature was reviewed.

Twenty-one patients aged 4 to 68 years, including 8 males and 13 females. All patients underwent surgical treatment. Histologically, the tumor was consisted almost entirely of elongate, bipolar spindle cells arranged in a fascicular or storiform pattern. Mitotic figures were rare. Immunohistochemically, tumor cells were diffusely positive for S-100 protein (21/21), vimentin (15/15) and TTF1 (14/14), while they were weakly or focally positive for GFAP (13/16) and EMA (6/12). CKpan was negative in all cases and Ki-67 proliferation index was low (<5%). Among the 18 patients with follow-up, all survived and 2 relapsed after surgery. Conclusions: Pituicytoma is a rare low-grade glioma of the sellar area. It is easily confused with other sellar tumors. Preoperative diagnosis is difficult. It needs to be confirmed by histopathology and immunohistochemistry. Microsurgery is the main treatment method at present [1].

Lefevre et al., from the Groupe Hospitalier Pitié-Salpêtrière, Paris, France published a retrospective multicenter study, reporting the clinical manifestations, radiological characteristics, histopathological features, treatment strategies and long-term outcomes of patients who have been treated for a Pituicytoma at various institutions in Paris, France over the past 10 years. In addition, they compared the results to the world literature in order to identify similarities concerning the radiographic diagnosis and the treatment strategies of these tumors.

Eight patients were operated on in four different hospitals. Misdiagnosis was constant before surgery, pituitary neuroendocrine tumor or craniopharyngioma being suspected. During surgery (transsphenoidal approach: six cases, transcranial approach: two cases) unusual tumors were noted, with important bleeding in most cases. Complete resection could be obtained in five patients. Pathological diagnosis was confirmed in all cases. During the follow up two recurrences occurred. One was subsequently treated with radiotherapy, the other underwent a second surgery.

Recent updates concerning the histological diagnosis of pituicytomas should be generalized to our practice in order to provide a better understanding of this rare pathology and its natural course [2].

1)
Feng X, Bao W, Wang X, Rao Q, Shi QL, Yue Z. [Pituicytoma: a clinicopathological analysis of twenty-one cases]. Zhonghua Bing Li Xue Za Zhi. 2022 Apr 8;51(4):314-318. Chinese. doi: 10.3760/cma.j.cn112151-20210818-00579. PMID: 35359042.

2)
Lefevre E, Bouazza S, Bielle F, Boch AL. Management of pituicytomas: a multicenter series of eight cases. Pituitary. 2018 Jul 31. doi: 10.1007/s11102-018-0905-3. [Epub ahead of print] PubMed PMID: 30062665.