Commentary

Pituitary apoplexy, including subclinical cases, defined as ischemia or hemorrhage in the pituitary gland, occurs in 10–17% of pituitary tumors. Clinical presentation is usually characterized by the acute onset of severe headache, visual field defects, meningeal irritation, ophthalmoplegia, and hypopituitarism.[1] Apoplexy primarily occurs in macroadenomas and most pituitary apoplexies occur in nonfunctioning adenomas.[2] Predisposing factors for pituitary apoplexy include radiation therapy, hypertension, diabetes mellitus, dynamic pituitary testing, anticoagulant therapy, and use of bromocriptine.

The authors of the interesting article "postpartum pituitary apoplexy with isolated oculomotor nerve palsy: A rare medical emergency" state that the postpartum state is not a precipitating risk factor for pituitary apoplexy. However, it should be mentioned that the pregnant state itself is a risk factor for pituitary apoplexy as pituitary tissue and especially prolactinomas may enlarge due to the altered hormonal environment due to increase in binding protein levels and the production of trophic and target hormones from both the pituitary and the placenta during pregnancy, which may lead to pituitary apoplexy.[3] In addition, estrogen causes hyperemia of the pituitary and could, therefore, contribute to the risk of pituitary apoplexy during pregnancy.[4] Furthermore, the differential diagnosis in the presented case should also contain the possibility of a lymphocytic hypophysitis. This is a rare inflammatory disorder of the pituitary gland. This disorder is more prevalent in females and often manifests itself in late pregnancy or in the postpartum period. It can primarily present itself as a pituitary mass causing visual disturbances and hypopituitarism. It is very difficult to distinguish this condition from a pituitary adenoma based on imaging. Histological examination is often mandatory to differentiate the two conditions.[5] Unfortunately, the authors did not provide any information about clues of posterior pituitary dysfunction such as fluid balance and electrolytes, as this would raise the suspicion of lymphocytic hypophysitis. Pituitary apoplexy in a case of lymphocytic hypophysitis has been described in the literature.[6] The

disease is frequently glucocorticoid responsive. Patients who do not respond to glucocorticoid therapy and further deteriorate may need more extensive surgery. However, the explanation, posed by the authors, that the postpartum blood loss might have caused ischemic necrosis (Sheehan syndrome) followed by a secondary hemorrhage is also plausible.

A second comment on the paper that needs to be made considers the statement of the authors that apoplexy occurred in a nonadenomatous pituitary gland. This statement is difficult to defend as there is no neuro-imaging before the event. It is possible that a previously present "silent" adenoma has fully regressed due to the pituitary apoplexy. Pituitary apoplexy may be the first presentation of an unrecognized adenoma. Furthermore, complete involution of lymphocytic hypophysitis is also possible and previously reported in the literature.[7] Even the appearance of an empty sella with permanent panhypopituitarism has been reported following lymphocytic hypophysitis.[8]

In support of the authors it is important to remind that, although relatively rare, pituitary apoplexy as a consequence of a pituitary adenoma, lymphocytic hypophysitis, secondary to Sheehan syndrome or due to hormonal changes during and shortly after pregnancy should be considered when a woman presents during or shortly after pregnancy with headaches and visual and/or neurological symptoms of sudden onset. In these cases, prompt laboratory evaluation and treatment of suspected life-threatening adrenal insufficiency is mandatory and surgical management should be considered in the case of endangered vision due to compression of the optic chiasm. When adrenal insufficiency is clinically suspected, immediate treatment should be instituted, even before imaging is performed, to maintain hemodynamic stability as was adequately done by the authors. Although not always available in rural areas, it is desirable to care for patients presenting with this disorder with a multidisciplinary approach involving the gynecologist, endocrinologist, neuroradiologist, and when needed a neurosurgeon with adequate expertise in the field of pituitary surgery in order to minimize morbidity and mortality and to preserve pituitary function as much as possible. Endocrinological follow-up is mandatory within 3 months following the event. This follow-up should include full biochemical assessment of pituitary function and visual field perimetry study. Furthermore, it should be clear that patients with a known risk factor for pituitary apoplexy, like a large macroadenoma or lymphocytic hypophysitis, should be informed on the risk of attempting pregnancy without adequate disease control.

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