Summary

Pituitary apoplexy (apoplexy—to disable by a stroke) is a clinical syndrome characterized by the abrupt onset of characteristic signs and symptoms, most commonly headache, nausea, visual disturbance, and ophthalmoplegia, in association with hemorrhage or infarction within the pituitary fossa. Because pituitary apoplexy is rare, and because most cases occur suddenly in the absence of prior suspicion for pituitary pathology, it has been a difficult condition to study. Regardless, if apoplexy is diagnosed in a timely fashion and managed appropriately, death should be rare and permanent neurologic complication of the acute event should be uncommon. This chapter will review what is known of the epidemiology of pituitary apoplexy as well as its clinical presentation, management, and prognosis.

Key Words: Pituitary apoplexy.
1. INTRODUCTION

Pituitary apoplexy (apoplexy —to disable by a stroke) is a clinical syndrome characterized by the abrupt onset of characteristic signs and symptoms, most commonly headache, nausea, visual disturbance, and ophthalmoplegia, in association with hemorrhage or infarction within the pituitary fossa. The first widely cited case of pituitary apoplexy was reported by Dr Pearce Bailey in 1898 as a case of “hemorrhage into the pituitary” (1). The patient had suffered from “dimness of vision” for 5 months when he was “suddenly taken with severe headache, nausea, vomiting, and blindness.” Physical examination was significant for “restlessness and stupor,” weak pulses, varying degrees of ophthalmoplegia of both eyes, and ptosis of the right eyelid. His condition rapidly deteriorated, and he died within 24 h of presentation. Autopsy revealed that “Occupying the sella turcica and projecting about 3 cm above it was a mass …” that on microscopic examination was identified as “… the encapsulated pituitary, enlarged to three or four times its natural size, in which an extensive hemorrhage had recently taken place.”

Several similar cases of hemorrhage within the pituitary gland found on autopsy were subsequently reported in the literature, but the syndrome was first described as “pituitary apoplexy” in a case series and review of the literature in 1950 (2). The authors presented ten cases and described a clinically and pathologically defined syndrome in which patients “quite abruptly develop headache, amblyopia, diplopia, drowsiness, confusion, or coma,” and autopsy reveals hemorrhage and necrosis of pituitary adenomas. All of the patients presented had died shortly after presentation. However, the authors cited two reports describing successful operative management of patients found to have hemorrhagic pituitary adenomas (3,4). Interestingly, one of these surgical papers included as authors Pearce Bailey, credited with the first description of apoplexy, and Harvey Cushing.

Since that time, an extensive descriptive literature on pituitary apoplexy has emerged, mostly in the form of case reports and small series. Because pituitary apoplexy is rare, and because most cases occur suddenly in the absence of prior suspicion for pituitary pathology, it has been a difficult condition to study. Regardless, if apoplexy is diagnosed in a timely fashion and managed appropriately, death should be rare and permanent neurologic complication of the acute event should be uncommon. This chapter will review what is known of the epidemiology of pituitary apoplexy as well as its clinical presentation, management, and prognosis.