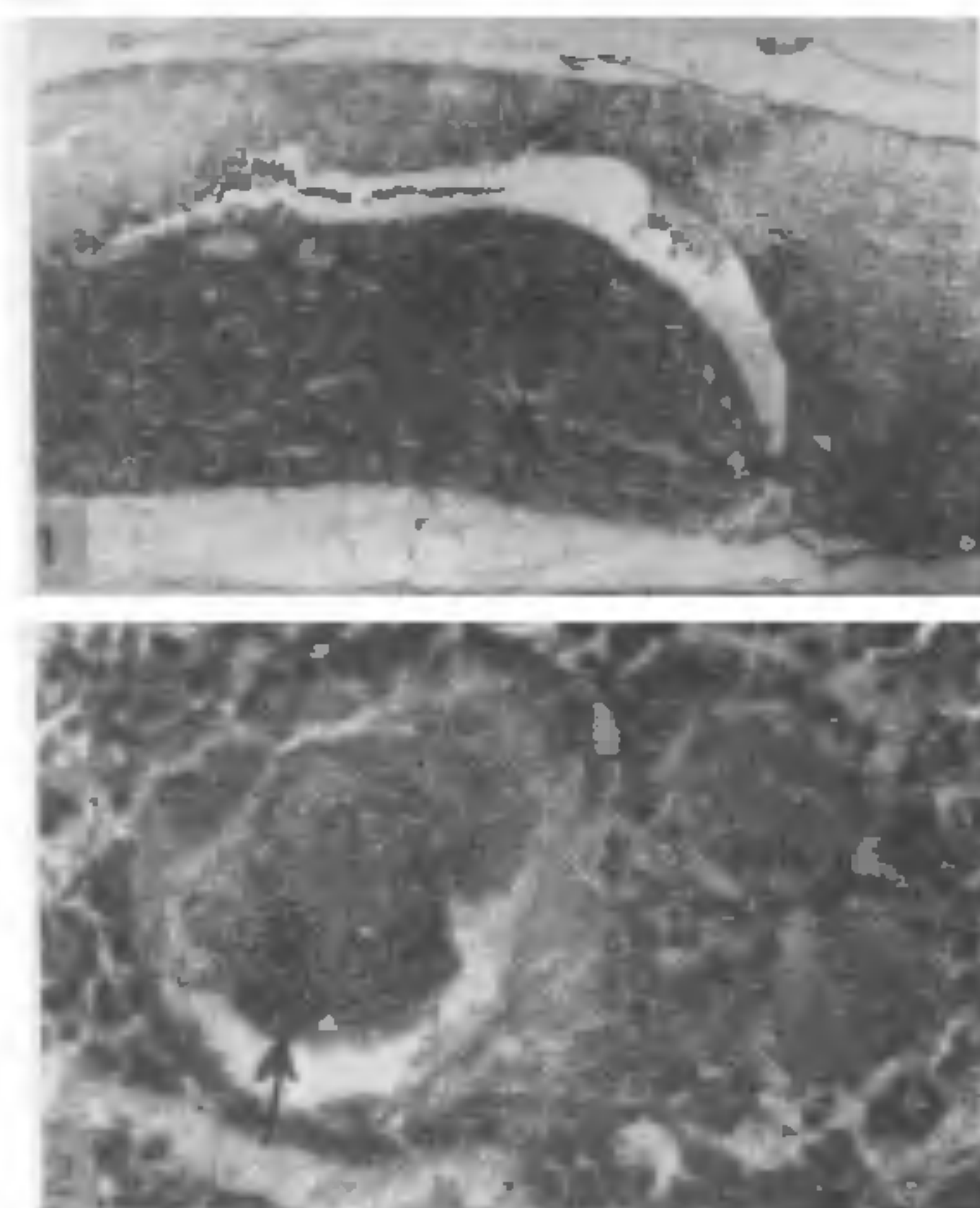


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COLLOID CONCRETIONS IN THE PARS ANTERIOR OF THE PITUITARY OF *MEGADERMA LYRA LYRA* (GEOFFROY)

Megaderma lyra lyra is the Indian false vampire bat inhabiting old deserted houses. During our studies correlating the cytological picture of the anterior pituitary with the different phases of the reproductive cycle, colloid concretions were observed in the pars anterior adjacent with the hypophyseal cleft. Such concretions were observed in the specimens collected in the months of September and October. The incidence of colloid concretions in the pars anterior of human hypophyses has been reported^{1,3,5}. The concretions were of varying sizes and each contained a PAS-positive and aniline blue positive homogeneous material. Such concretions had a distinct lining of low cuboidal cells and each containing a distinct nucleus. According to Rasmussen^{2,3} and Romeis⁴ there is a high incidence of colloid in rat and man, and the accumulation of colloid was considered by these authors as a pathological condition or a symptom of abnormality. Wolfe and Eaton⁶ observed that the accumulation of colloid in the pars anterior is a manifestation of the advanced age. Further they noted that the colloid arises from the disintegration of some of the anterior lobe cells located in the centre of the alveoli. Although the nature, origin and significance of the colloid droplets are not known with certainty, their high incidence at advanced age is noted in many mammals⁶. The presence of concretions with a definite cuboidal cell lining appears to be a feature observed only in two male specimens of *Megaderma lyra lyra* collected in the months of September and October, i.e., just prior to the onset of the breeding season in this species. Reports regarding correlation of colloid with sex cycle are not available in Chiroptera.



FIGS. 1-2. Fig. 1. Part of the sagittal section of the pituitary of *Megaderma lyra lyra* with neural lobe, pars intermedia, and pars anterior. Note the presence of colloid filled vesicles (arrow) in the pars anterior. The specimen was collected in September, i.e., just before the onset of the breeding season. $\times 60$ (H.E.). Fig. 2. Part of the figure magnified to show colloid filled vesicles. Note the presence of a distinct cuboidal lining with darkly staining nuclei and nearly completely filled homogeneous mass. $\times 360$ (H.E.).

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