

DIAGNOSTIC EXERCISE

From The Davis-Thompson Foundation*

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Question Sheet

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Clinical History: An outbreak of neurologic disease in mules occurred in Pará, northern Brazil, and affected 13 out of 80 mules. Until one week before the outbreak, the 80 mules were supplemented daily with 60 kg of ground whole corn (a mixture of corn ground together with the straw and corncob) and 30 kg of African palm oil meal. One week before the outbreak, food was increased to 150 kg of ground whole corn, 60 kg of African palm oil meal, and 120 kg of poultry litter. One mule was evaluated because of compulsive walking, blindness, and head pressing (Fig. 1). The patient died 12 hours from the onset of clinical signs.



Figure 1. Affected mule with head pressing.

Necropsy findings. The left cerebral hemisphere was enlarged with flattened gyri. The cut surface of the left hemisphere and the cerebral white matter (centrum semioval and corona radiata) had red areas of hemorrhage and necrosis or yellow areas of edema. Similar regions occurred in other areas of the brain, mainly the thalamus and mesencephalon. The liver was swollen and yellow.



Figure 2. Cros section of the brain.

Follow Up Questions

- *Morphologic diagnosis?*
- *Cause?*
- *Name of the condition?*

The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation (DTF). These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the DTF website.

(<https://davisthompsonfoundation.org/diagnostic-exercise/>)

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