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Investigation of the Age of Native Neonatal Calves with Positive Menace Response and Pupillary Light Reflex under Traditional Farming Conditions

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Abstract

Menace response and pupillary light reflex are used as part of the ophthalmic and neurological examinations in animals. This study was conducted to investigate the menace response and pupillary light reflex in native calves that were not separated from their mothers after birth and had traditional rearing conditions. Thirty healthy native calves were included in the study. The menace response was assessed by applying a non-tactile visual threat to each eye. The direct pupillary light reflex was tested by shining a bright light into each eye and observing constriction of the pupil in the ipsilateral eye. Calves were observed after birth until the menace response and pupillary light reflex were well present. The pupillary light reflex was positive in all calves in the first test performed after birth. The menace response developed in the age range of 3 to 6 days in calves and this response developed earlier in male than female calves. According to the results of previous study, none of the calves developed a menace response during the time they were housed in individual stalls. The present study indicated that development of menace response in traditionally reared calves (housing with their mothers in a common pen) was observed on the 6th day after birth.

Key word: Calf, Neonate, Eye, Menace response, Pupillary light reflex

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