A Case of Harlequin Ichthyosis in HanWoo (Bos Taurus Coreanae)

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Introduction: Ichthyosis (fish scale disease) is a rare hereditary disease of humans, cattle, dogs, swine, chickens mice, and llamas and characterized by excessive cutaneous scale formation.

Materials and methods: A male HanWoo (Bos taurus coreanae) calf born by natural service from normal cow and bull was found with fissures and thickened, scaly, cutaneous plates covering over 85% of its body. Histopathological feature was excess compact orthokeratotic hyperkeratosis involving surface of the epidermis and follicular epithelia. The calf had small malformed ears, ectropion, eclabium and an abnormal nose.

Results: Gross and histopathologic findings in calf were consistent with those of harlequin ichthyosis, and it was the first observed Harlequin ichthyosis in HanWoo. The calf was euthanized due to owner's request and the dam was not used for breeding.

Clinical relevance: Further research is necessary to investigate exact causative genes and genetic inspection for the seed bull in the national artificial insemination station.