

Congenital Bilateral Anophthalmia in a Holstein Calf

**Tai-Young Hur, Seog-Jin Kang, Yong-Il Cho, Young-Hun Jung,
Yoon-Jung Do, Il-Sun Ryu, Kwang-Soo Back, Byeong-Soon Jeon,
Hyeon-Shup Kim, Byeong-Suk Ahn and Guk-Hyun Suh***

*National Livestock Research Institute, Rural Development Administration,
South Korea National Institute of Subtropical Agriculture,
Rural Development Administration, South Korea*

Anophthalmia is defined as the clinical absence of a recognized globe, but its differentiation from severe microphthalmias is difficult. Anophthalmia in cattle has been considered as a congenital anomaly, the incidence of which has been estimated to be low however, some variations exists among breeds. In this report, a congenital bilateral anophthalmia is described in a young Holstein calf born at Jan 14 2007 at National Livestock Research Institution, South Korea. The anomalous calf with wry tail showed normal vigor, appetite and normal body weight except for eye defect. The orbits were shallower and smaller than normal. The orbit bilaterally contained a white small mass suspected as eyeball. A spot-like remnant of eyeball (REB) was buried in the mixture of vestigial extra-ocular muscles and adipose tissue of the bilateral orbit. The optic nerve, chiasm and tract were not found in the cavity and destructive changes in the central nervous systems were not detected. This case of eye defect may be defined as primary anophthalmia. The dam of anomalous calf had never delivered abnormal calves at previous parturition. Additionally cow was in good health condition and received no medical treatment during pregnancy. The cause of this ocular defect is unknown and may be a genetical anomaly.

* Corresponding author: ghsuh@rda.go.kr