



Synophthalmia in a Holstein cross calf

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Objectives: Cyclopia describes the presence of a single median orbita that contains either a single eyeball (true cyclopia) or incompletely fused eyeballs (synophthalmia). The synophthalmia is a result of complex, neural plate misdevelopment syndrome involving the eye, brain, skull and face. It is well known that synophthalmia is due to heterogenous causes, most of which chromosomal imbalances. To the authors experiences, there is no report about occurrence of synophthalmia in calf from Iran and we describe macroscopic characteristics of this developmental anomaly.

Materials & Methods: The head of a Holstein female calf from a 5-year-old cow was referred to Department of Pathobiology, School of Veterinary Medicine, Shahrekord University due to complex congenital anomalies. The calf was slaughtered immediately after birth due to severe respiratory distress. The head was examined grossly and the anomalies recorded.

Results & Conclusion: The most striking malformation was the presence of a single median orbita that contained incompletely fused eyeballs. Duplication of anterior intraocular structures, such as lens and pupil were found but there was one optic nerve. The brain was primitive with no cerebral hemispheres and gray and white matters differentiation. There was no optic chiasma. Other important defects included hypoplastic maxilla, curved mandibles, arrhinia and dental pad agenesis. A normal tongue protruded from the defect and small oral cavity. To our knowledge, this particular combination of craniofacial defects has not been previously described in domestic animals.

Keywords: Congenital anomalies, Cyclopia, Synophthalmia, Calf

The effect of L-carnitine on buffalo epididymal sperm motility with CASA

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Objectives: Sperm stored in the cauda epididymis have usually good quality and a high level of maturation being able to fertilize oocytes. L-carnitine is required during the oxidation of lipids for the transport of fatty acids from the cytosol into the mitochondria for generation of energy and increasing of motility, to increase sperm quality we used l-carnitine.

Materials & Methods: For evaluation the effects of carnitine on buffalo epididymal sperm motility, buffalo bull testicles (20 pairs) were picked up in the march 2012 till September 2012 in Urmia local slaughterhouse and transported to the laboratory in a cool container (filled with 5oc ice pack). After adding 4 levels of L-carnitine: 2.5-5-7.5-10 mM, in Hams F10 media with 10 percent BSA, 9 hours incubation in 37°C was performed. In different times: 2-4-6-8-9 hrs after incubation, samples for assessment of motility with CASA was conducted

Results & Conclusion: After collection of data from CASA analysis, Statistical analyses were performed with procedures available in ANOVA of SPSS ver 20, The results showed that adding of carnitine in media containing buffalo epididymal sperm cells in 9 hrs had no desired effects on CASA parameters and after 4hrs incubation CASA parameters such as the percentage of Class A, Class A+B+C, VCL, VAP, VSL, were reduced than control (P<0.05). It is concluded that adding of L-carnitine in 2.5-5-7.5- and 10 mM levels to Buffalo epididymal sperm culture media had no increasing effect on sperm motility.

Keywords: Buffalo, epididymal sperm, carnitine, CASA