A case of polioencephalomalacia in a breeding bull

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A 16 month old Angus bull was presented with a history of being off feed. Bull was blind and diagnosed as having polioencephalomalacia due to a feed change, with consumption of a high concentrate feed resulting in ruminal acidosis and an overgrowth of thiaminase-producing bacteria. Following treatment for polioencephalomalacia, including administration of thiamine and transfaunation, an initial Breeding Soundness Exam (BSE) was performed. He was determined to be an unsatisfactory breeder due to absence of menace response (indicative of central blindness) and high numbers of primary sperm morphological abnormalities. A follow up BSE was performed 1 month later. Bull had regained his menace reflex and percentage of morphologically normal sperm had increased to almost normal levels. At a third BSE, 2 months following initial treatment, he was determined to be a satisfactory breeder. Since he was a calving-ease bull, he was exposed to breeding age heifers. He successfully bred all heifers and was utilized for 2 additional breeding seasons. Inciting factors responsible for polioencephalomalacia can result in severe clinical disease involving neurological and reproductive systems. However, recovery may be possible if the disease is identified quickly and treated appropriately.

Keywords: Bull, breeding soundness examination, polioencephalaomalacia