

## Neonatology Clinical Routine in Cats and Dogs: Cases, Main Conditions and Mortality

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**Abstract :** The neonatal care of cats and dogs represents a challenge to veterinarians due to the small size of the newborns and their physiological particularities. In addition, many Veterinary Medicine colleges around the world do not include neonatology in the curriculum, which makes it less likely for the veterinarian to have basic knowledge regarding neonatal care and worsens the clinical care these patients receive. Therefore, lack of assistance and negligence have become frequent in the field, which contributes towards the high mortality rates. This study aims at describing cases and the main conditions pertaining to the neonatology clinical routine in cats and dogs, highlighting the importance of specialized care in this field of Veterinary Medicine. The study included 808 neonates admitted to the São Paulo State University (UNESP) Veterinary Hospital, Botucatu, São Paulo, Brazil, between January 2018 and November 2019. Of these, 87.3% (705/808) were dogs and 12.7% (103/808) were cats. Among the neonates admitted, 57.3% (463/808) came from emergency c-sections due to dystocia, 8.7% (71/808) came from vaginal deliveries with obstetric maneuvers due to dystocia, and 34% (274/808) were admitted for clinical care due to neonatal conditions. Among the neonates that came from emergency c-sections and vaginal deliveries, 47.3% (253/534) was born in respiratory distress due to severe hypoxia or persistent apnea and required resuscitation procedure, such as the Jen Chung acupuncture point (VG26), oxygen therapy with mask, pulmonary expansion with resuscitator, heart massages and administration of emergency medication, such as epinephrine. On the other hand, in the neonatal clinical care, the main conditions and alterations observed in the newborns were omphalophlebitis, toxic milk syndrome, neonatal conjunctivitis, swimmer puppy syndrome, neonatal hemorrhagic syndrome, pneumonia, trauma, low weight at birth, prematurity, congenital malformations (cleft palate, cleft lip, hydrocephaly, anasarca, vascular anomalies in the heart, anal atresia, gastroschisis, omphalocele, among others), neonatal sepsis and other local and systemic bacterial infections, viral infections (feline respiratory complex, parvovirus, canine distemper, canine infectious traqueobronchitis), parasitical infections (*Toxocara* spp., *Ancylostoma* spp., *Strongyloides* spp., *Cystoisospora* spp., *Babesia* spp. and *Giardia* spp.) and fungal infections (dermatophytosis by *Microsporum canis*). The most common clinical presentation observed was the neonatal triad (hypothermia, hypoglycemia and dehydration), affecting 74.6% (603/808) of the patients. The mortality rate among the neonates was 10.5% (85/808). Being knowledgeable about neonatology is essential for veterinarians to provide adequate care for these patients in the clinical routine. Adding neonatology to college curriculums, improving the dissemination of information on the subject, and providing annual training in neonatology for veterinarians and employees are important to improve immediate care and reduce the mortality rates.

**Keywords :** neonatal care, puppies, neonatal, conditions

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