

VDOS Clinical Rounds/Journal Clubs (Congenital Palate Defects)

Publications discussed on December 4, 2020 and December 5, 2020

- Senders CW, Eisele P, Freeman LE, Sponenberg DP. Observations about the normal and abnormal embryogenesis of the canine lip and palate. *Journal of Craniofacial Genetics and Developmental Biology Supplement* 1986; 2: 241-248.
- Freiburger K, Hemker S, McAnally R, King R, et al. Secondary palate development in the dog (*Canis lupus familiaris*). *Cleft Palate Craniofacial Journal* 2020; Jul 24:1055665620943771. doi: 10.1177/1055665620943771.
- Cooper HK Jr, Mattern GW. Genetic studies of cleft lip and palate in dogs. *Birth Defects Original Article Series* 1971; 7(7): 98-100.
- Richtsmeier JT, Sack GH Jr, Grausz HM, Cork LC. Cleft palate with autosomal recessive transmission in Brittany spaniels. *Cleft Palate Craniofacial Journal* 1994; 31: 364-371.
- Kemp C, Thiele H, Dankof A, Schmidt G, et al. Cleft lip and/or palate with monogenic autosomal recessive transmission in Pyrenees shepherd dogs. *Cleft Palate Craniofacial Journal* 2009; 46: 81-88.
- Moura E, Cirio SM, Pimpão CT. Nonsyndromic cleft lip and palate in boxer dogs: evidence of monogenic autosomal recessive inheritance. *Cleft Palate and Craniofacial Journal* 2012; 49: 759-760.
- Kim MJ, Oh HJ, Kim GA, Jo YK, et al. Reduced birth weight, cleft palate and preputial abnormalities in a cloned dog. *Acta Veterinaria Scandinavica* 2014; 56(1): 18. doi: 10.1186/1751-0147-56-18.
- Wolf ZT, Leslie EJ, Arzi B, Jayashankar K, et al. A LINE-1 insertion in DLX6 is responsible for cleft palate and mandibular abnormalities in a canine model of Pierre Robin sequence. *PLoS Genetics* 2014 Apr 3;10(4):e1004257. doi: 10.1371/journal.pgen.1004257.
- Wolf ZT, Brand HA, Shaffer JR, Leslie EJ, et al. Genome-wide association studies in dogs and humans identify ADAMTS20 as a risk variant for cleft lip and palate. *PLoS Genetics* 2015 Mar 23;11(3):e1005059. doi: 10.1371/journal.pgen.1005059.
- Elwood JM, Colquhoun TA. Observations on the prevention of cleft palate in dogs by folic acid and potential relevance to humans. *New Zealand Veterinary Journal* 1997; 45(6): 254-256.
- Domosławska A, Jurczak A, Janowski T. Oral folic acid supplementation decreases palate and/or lip cleft occurrence in Pug and Chihuahua puppies and elevates folic acid blood levels in pregnant bitches. *Polish Journal of Veterinary Science* 2013; 16: 33-37.
- Freytag TL, Liu SM, Rogers QR, Morris JG. Teratogenic effects of chronic ingestion of high levels of vitamin A in cats. *Journal of Animal Physiology and Animal Nutrition* 2003; 87(1-2): 42-51.
- Nobre Pacifico Pereira KH, Cruz Dos Santos Correia LE, Ritir Oliveira EL, Bernardo RB, et al. Incidence of congenital malformations and impact on the mortality of neonatal canines. *Theriogenology* 2019; 140: 52-57.
- Sananmuang T, Mankong K, Jeeratanyasakul P, Chokeshai-Usaha K, Ponglowhapan S. Prenatal diagnosis of foetal hydrocephalus and suspected X-linked recessive inheritance of cleft lip in a Chihuahua. *Journal of Veterinary Medical Science* 2020; 82: 212-216.

- Peralta S, Fiani N, Kan-Rohrer KH, Verstraete FJM. Morphological evaluation of clefts of the lip, palate, or both in dogs. *American Journal of Veterinary Research* 2017; 78: 926-933.
- Moura E, Pimpão CT. A numerical classification system for cleft lip and palate in the dog. *Journal of Small Animal Practice* 2017; 58: 610-614.
- Roman N, Carney PC, Fiani N, Peralta S. Incidence patterns of orofacial clefts in purebred dogs. *PLoS One* 2019 Nov 4;14(11):e0224574. doi: 10.1371/journal.pone.0224574.
- Paradas-Lara I, Casado-Gómez I, Martín C, Martínez-Sanz E, et al. Maxillary growth in a congenital cleft palate canine model for surgical research. *Journal of Craniomaxillofacial Surgery* 2014; 42: 13-21.
- Nemec A, Daniaux L, Johnson E, Peralta S, Verstraete FJ. Craniomaxillofacial abnormalities in dogs with congenital palatal defects: computed tomographic findings. *Veterinary Surgery* 2015; 44: 417-422.
- Pankowski F, Paško S, Max A, Szal B, et al. Computed tomographic evaluation of cleft palate in one-day-old puppies. *BMC Veterinary Research* 2018; 14(1): 316. doi: 10.1186/s12917-018-1642-6.
- Martínez-Sanz E, Casado-Gómez I, Martín C, López-Gordillo Y, et al. A new technique for feeding dogs with a congenital cleft palate for surgical research. *Laboratory Animal* 2011; 45 (2): 70-80.
- Conze T, Ritz I, Hospes R, Wehrend A. Management of cleft palate in puppies using a temporary prosthesis: A report of three cases. *Veterinary Science* 2018; 5(3):61. doi: 10.3390/vetsci5030061.
- Sylvestre AM, Sharma A. Management of a congenitally shortened soft palate in a dog. *Journal of the American Veterinary Medical Association* 1997; 211: 875-877.
- Sager M, Nefen S. Use of buccal mucosal flaps for the correction of congenital soft palate defects in three dogs. *Veterinary Surgery* 1998; 27: 358-363.
- Gregory SP. Middle ear disease associated with congenital palatine defects in seven dogs and one cat. *Journal of Small Animal Practice* 2000; 41: 398-401.
- Griffiths LG, Sullivan M. Bilateral overlapping mucosal single-pedicle flaps for correction of soft palate defects. *Journal of the American Animal Hospital Association* 2001; 37: 183-186.
- Warzee CC, Bellah JR, Richards D. Congenital unilateral cleft of the soft palate in six dogs. *Journal of Small Animal Practice* 2001; 42: 338-340.
- Headrick JF, McAnulty JF. Reconstruction of a bilateral hypoplastic soft palate in a cat. *Journal of the American Animal Hospital Association* 2004; 40(1): 86-90.
- Mullins RA, Guerin SR, Pratschke KM. Use of a split-thickness soft palate hinged flap and bilateral buccal mucosal rotation flaps for one-stage repair of a bilateral hypoplastic soft palate in a dog. *Journal of the American Veterinary Medical Association* 2016; 248: 91-95.
- White RN, Hawkins HL, Alemi VP, Warner C. Soft palate hypoplasia and concurrent middle ear pathology in six dogs. *Journal of Small Animal Practice* 2009; 50: 364-372.
- Woodbridge NT, Baines EA, Baines SJ. Otitis media in five cats associated with soft palate abnormalities. *Veterinary Record* 2012; 171(5): 124. doi: 10.1136/vr.100720.
- Ishikawa Y, Goris RC, Nagaoka K. Use of a cortico-cancellous bone graft in the repair of a cleft palate in a dog. *Veterinary Surgery* 1994; 23: 201-205.
- Wang Y, Shi B, Li Y, Zheng Q, Deng DZ. Comparative study of maxillary growth and occlusal outcome after autogenous rib grafting in complete cleft palate defect. *Journal of Craniomaxillofacial Surgery* 2006; 17: 68-79.

- Lee JI, Kim YS, Kim MJ, Lee J, et al. Application of a temporary palatal prosthesis in a puppy suffering from cleft palate. *Journal of Veterinary Science* 2006; 7: 93-95.
- Peralta S, Campbell RD, Fiani N, Kan-Rohrer KH, Verstraete FJM. Outcomes of surgical repair of congenital palatal defects in dogs. *Journal of the American Veterinary Medical Association* 2018; 253: 1445-1451.
- Martínez-Álvarez C, González-Meli B, Berenguer-Froehner B, Paradas-Lara I, et al. Injection and adhesion palatoplasty: a preliminary study in a canine model. *Journal of Surgical Research* 2013; 183: 654-662.
- Arzi B, Verstraete FJ. Repair of a bifid nose combined with a cleft of the primary palate in a 1-year-old dog. *Veterinary Surgery* 2011; 40: 865-869.