

VDOS Clinical Rounds/Journal Clubs (Oral/Maxillofacial Diagnostic Imaging)

Publications discussed on August 21, 2023

Anatomy

- Gioso MA, Shofer F, Barros PS, Harvey CE. Mandible and mandibular first molar tooth measurements in dogs: relationship of radiographic height to body weight. *Journal of Veterinary Dentistry* 2001; 18: 65-68.
- Martinez LA, Gioso MA, Lobos CM, Pinto AC. Localization of the mandibular canal in brachycephalic dogs using computed tomography. *Journal Veterinary Dentistry* 2009; 26: 156-63.
- Snyder CJ, Soukup JW, Drees R, Tabone TJ. Caudal mandibular bone height and buccal cortical bone thickness measured by computed tomography in healthy dogs. *Veterinary Surgery* 2016; 45: 21-29.
- Santos M, Carreira LM. Insight of dogs' inner mandible anatomy using mathematical models. *Anatomia Histologia Embryologia* 2016; 45: 479-484.
- Southerden P, Haydock RM, Barnes DM. Three dimensional osteometric analysis of mandibular symmetry and morphological consistency in cats. *Frontiers in Veterinary Science* 2018 Jul 12;5:157. doi: 10.3389/fvets.2018.00157.
- Andreis ME, Polito U, Veronesi MC, Faustini M, Di Giancamillo M, Modina SC. Novel contributions in canine craniometry: Anatomic and radiographic measurements in newborn puppies. *PLoS One* 2018 May 8;13(5):e0196959. doi: 10.1371/journal.pone.0196959.
- Pankowski F, Paško S, Max A, et al. Computed tomographic evaluation of cleft palate in one-day-old puppies. *BMC Veterinary Research* 2018 Oct 20;14(1):316. doi: 10.1186/s12917-018-1642-6.
- Berning JA, Snyder CJ, Hetzel S, Sarment DP. Analysis of the anatomic relationship between the mandibular first molar roots and mandibular canal using cone-beam computed-tomography in 101 dogs. *Frontiers in Veterinary Science* 2020 Jan 17;6:485. doi: 10.3389/fvets.2019.00485.
- Chia H, Taney K, Hoover D, Robertson JB, Villamizar-Martinez LA. Localization of the first mandibular molar roots in relationship to the mandibular canal in small breed dogs-A tomography imaging study. *Frontiers in Veterinary Science* 2021 May 12;8:684763. doi: 10.3389/fvets.2021.684763.

Regional Lymph Nodes

- Kneissl S, Probst A. Comparison of computed tomographic images of normal cranial and upper cervical lymph nodes with corresponding E12 plastinated-embedded sections in the dog. *Veterinary Journal* 2007; 174: 435-438.
- Nemanic S, Nelson NC. Ultrasonography and noncontrast computed tomography of medial retropharyngeal lymph nodes in healthy cats. *American Journal of Veterinary Research* 2012; 73: 1377-1385.
- Johnson PJ, Elders R, Pey P, Dennis R. Clinical and magnetic resonance imaging features of inflammatory versus neoplastic medial retropharyngeal lymph node mass lesions in dogs and cats. *Veterinary Radiology and Ultrasound* 2016; 57: 24-32.

- Rossi F, Körner M, Suárez J, et al. Computed tomographic-lymphography as a complementary technique for lymph node staging in dogs with malignant tumors of various sites. *Veterinary Radiology and Ultrasound* 2018; 59: 155-162.
- Ruppel MJ, Pollard RE, Willcox JL. Ultrasonographic characterization of cervical lymph nodes in healthy dogs. *Veterinary Radiology and Ultrasound* 2019; 60: 560-566.
- Choi M, Yoon J, Choi M. Contrast-enhanced ultrasound sonography combined with strain elastography to evaluate mandibular lymph nodes in clinically healthy dogs and those with head and neck tumors. *Veterinary Journal* 2020 Mar;257:105447. doi: 10.1016/j.tvjl.2020.105447.
- Belotta AF, Sukut S, Lowe C, Waldner C, Randall EK, MacDonald VS, Gagnon J, Mayer MN. Computed tomography features of presumed normal mandibular and medial retropharyngeal lymph nodes in dogs. *Canadian Journal of Veterinary Research* 2022; 86: 27-34.

Oral Tumors and Differential Diagnoses

- Seiler G, Rossi F, Vignoli M, Cianciolo R, Scanlon T, Giger U. Computed tomographic features of skull osteomyelitis in four young dogs. *Veterinary Radiology and Ultrasound* 2007; 48: 544-549.
- Gendler A, Lewis JR, Reetz JA, Schwarz T. Computed tomographic features of oral squamous cell carcinoma in cats: 18 cases (2002-2008). *Journal of the American Veterinary Medical Association* 2010; 236: 319-325.
- Vanbrugghe B, Blond L, Carioto L, Carmel EN, Nadeau ME. Clinical and computed tomography features of secondary renal hyperparathyroidism. *Canadian Veterinary Journal* 2011; 52: 177-180.
- Zwicker LA, Pack L. What is your diagnosis? *Journal of the American Veterinary Medical Association* 2011; 239: 575-576.
- Ghirelli CO, Villamizar LA, Pinto AC. Comparison of standard radiography and computed tomography in 21 dogs with maxillary masses. *Journal of Veterinary Dentistry* 2013; 30: 72-76.
- Soukup JW, Snyder CJ, Simmons BT, Pinkerton ME, Chun R. Clinical, histologic, and computed tomographic features of oral papillary squamous cell carcinoma in dogs: 9 cases (2008- 2011). *Journal of Veterinary Dentistry* 2013; 30: 18-24.
- Yoshikawa H, Randall EK, Kraft SL, Larue SM. Comparison between 2-(18) F-fluoro-2-deoxy-d-glucose positron emission tomography and contrast-enhanced computed tomography for measuring gross tumor volume in cats with oral squamous cell carcinoma. *Veterinary Radiology and Ultrasound* 2013; 54: 307-313.
- Nemec A, Murphy BG, Jordan RC, Kass PH, Verstraete FJ. Oral papillary squamous cell carcinoma in twelve dogs. *Journal of Comparative Pathology* 2014; 150: 155-161.
- Amory JT, Reetz JA, Sánchez MD, Bradley CW, Lewis JR, Reiter AM, Mai W. Computed tomographic characteristics of odontogenic neoplasms in dogs. *Veterinary Radiology and Ultrasound* 2014; 55: 147-158.
- Randall EK, Kraft SL, Yoshikawa H, LaRue SM. Evaluation of 18F-FDG PET/CT as a diagnostic imaging and staging tool for feline oral squamous cell carcinoma. *Veterinary Comparative Oncology* 2016; 14: p28-38.

- Winer JN, Verstraete FJM, Cissell DD, Lucero S, Athanasiou KA, Arzi B. The application of 3-dimensional printing for preoperative planning in oral and maxillofacial surgery in dogs and cats. *Veterinary Surgery* 2017; 46: 942-951.
- Hansen KS, Kent MS. Imaging in non-neurologic oncologic treatment planning of the head and neck. *Frontiers in Veterinary Science* 2019 Mar 28;6:90. doi: 10.3389/fvets.2019.00090.
- Lee DB, Watson KD, Wanamaker MW, Arzi B. Diagnostic imaging in veterinary dental practice. *Journal of the American Veterinary Medical Association* 2019; 255: 167-170.
- Spriet M, Willcox JL, Culp WTN. Role of positron emission tomography in imaging of non-neurologic disorders of the head, neck, and teeth in veterinary medicine. *Frontiers in Veterinary Science* 2019 Jun 11;6:180. doi: 10.3389/fvets.2019.00180.
- Mickelson MA, Regan D, Randall EK, Worley D, Seguin B. Canine tonsillar neoplasia and tonsillar metastasis from various primary neoplasms. *Veterinary Comparative Oncology* 2020; 18: 770-777.
- Thierry F, Longo M, Pecceu E, Zani DD, Schwarz T. Computed tomographic appearance of canine tonsillar neoplasia: 14 cases. *Veterinary Radiology and Ultrasound* 2018; 59: 54-63.

Salivary Gland Disorders

- Glen JB. Canine salivary mucocoeles. Results of sialographic examination and surgical treatment of fifty cases. *Journal of Small Animal Practice* 1972; 13: 515-526.
- Kneissl S, Weidner S, Probst A. CT sialography in the dog - a cadaver study. *Anatomia Histologia Embryologia* 2011; 40: 397-401.
- Cannon MS, Paglia D, Zwingenberger AL, et al. Clinical and diagnostic imaging findings in dogs with zygomatic sialadenitis: 11 cases (1990-2009). *Journal of the American Veterinary Medical Association* 2011; 239: 1211-1218.
- Weidner S, Probst A, Kneissl S. MR anatomy of salivary glands in the dog. *Anatomia Histologia Embryologia* 2012; 41: 149-153.
- Boland L, Gomes E, Payen G, Bouvy B, Poncet C. Zygomatic salivary gland diseases in the dog: three cases diagnosed by MRI. *Journal of the American Animal Hospital Association* 2013; 49: 333-337.
- Durand A, Finck M, Sullivan M, Hammond G. Computed tomography and magnetic resonance diagnosis of variations in the anatomical location of the major salivary glands in 1680 dogs and 187 cats. *Veterinary Journal* 2016; 209: 156-162.
- Proot JL, Nelissen P, Ladlow JF, Bowlt Blacklock K, Kulendra N, de la Puerta B, Sheahan DE. Parotidectomy for the treatment of parotid sialocoele in 14 dogs. *Journal of Small Animal Practice* 2016; 57: 79-83.
- Gil F, Arencibia A, García V, Ramírez G, Vázquez JM. Anatomic and magnetic resonance imaging features of the salivary glands in the dog. *Anatomy Histology and Embryology* 2018; 47: 551-559.
- Serras AR, Rasotto R, Piccinno F, et al. Lipomatosis of the parotid salivary gland: 2 case reports and review of the literature on fat-containing salivary gland lesions. *International Journal of Veterinary Science and Medicine* 2018; 6: 253-257.
- Oetelaar GS, Heng HG, Lim CK, Randall E. Computed tomographic appearance of sialoceles in 12 dogs. *Veterinary Radiology and Ultrasound* 2022; 63: 30-37.

Masticatory Muscle Myositis

- Reiter AM, Schwarz T. Computed tomographic appearance of masticatory myositis in dogs: 7 cases (1999-2006). *Journal of the American Veterinary Medical Association* 2007; 231: 924-930.
- Bishop TM, Glass EN, De Lahunta A, Shelton GD. Imaging diagnosis--masticatory muscle myositis in a young dog. *Veterinary Radiology and Ultrasound* 2008; 49: 270-272.
- Cauduro A, Paolo F, Asperio RM, Rossini V, Dondi M, Simonetto LA, Cantile C, Lorenzo V. Use of MRI for the early diagnosis of masticatory muscle myositis. *Journal of the American Animal Hospital Association* 2013; 49: 347-352.

Jaw Fractures

- Bar-Am Y, Pollard RE, Kass PH, Verstraete FJ. The diagnostic yield of conventional radiographs and computed tomography in dogs and cats with maxillofacial trauma. *Veterinary Surgery* 2008; 37: 294-299.
- Knight R, Meeson RL. Feline head trauma: a CT analysis of skull fractures and their management in 75 cats. *Journal of Feline Medicine and Surgery* 2019; 21: 1120-1126.
- Tundo I, Southerden P, Perry A, Haydock RM. Location and distribution of craniomaxillofacial fractures in 45 cats presented for the treatment of head trauma. *Journal of Feline Medicine and Surgery* 2019; 21: 322-328.
- Scherer E, Hetzel S, Snyder CJ. Assessment of the role of the mandibular first molar tooth in mandibular fracture patterns of 29 dogs. *Journal of Veterinary Dentistry* 2019; 36: 32-39.
- De Paolo MH, Arzi B, Pollard RE, Kass PH, Verstraete FJM. Craniomaxillofacial trauma in dogs-Part I: Fracture location, morphology and etiology. *Frontiers in Veterinary Science* 2020 Apr 28;7:241. doi: 10.3389/fvets.2020.00241.
- De Paolo MH, Arzi B, Pollard RE, Kass PH, Verstraete FJM. Corrigendum: Craniomaxillofacial trauma in dogs-Part I: Fracture location, morphology and etiology. *Frontiers in Veterinary Science* 2022 Mar 16;9:882505. doi: 10.3389/fvets.2022.882505.
- De Paolo MH, Arzi B, Pollard RE, Kass PH, Verstraete FJM. Craniomaxillofacial trauma in dogs-Part II: Association between fracture location, morphology and etiology. *Frontiers in Veterinary Science* 2020 May 15;7:242. doi: 10.3389/fvets.2020.00242.
- Hecht S, Anderson KM, Castel A, Griffin JF 4th, Hespel AM, Nelson N, Sun X. Agreement of magnetic resonance imaging with computed tomography in the assessment for acute skull fractures in a canine and feline cadaver model. *Frontiers in Veterinary Science* 2021 Apr 22;8:603775. doi: 10.3389/fvets.2021.603775.

Temporomandibular Joint Disorders

- Hoppe F, Svalastoga E. Temporomandibular dysplasia in American Cocker Spaniels. *Journal of Small Animal Practice* 1980; 21: 675-678.
- Dickie AM, Sullivan M. The effect of obliquity on the radiographic appearance of the temporomandibular joint in dogs. *Veterinary Radiology and Ultrasound* 2001; 42: 205-217.
- Dickie AM, Schwarz T, Sullivan M. Temporomandibular joint morphology in Cavalier King Charles Spaniels. *Veterinary Radiology and Ultrasound* 2002; 43: 260-266.
- Reiter AM. Symphysiotomy, symphysiectomy, and intermandibular arthrodesis in a cat with open-mouth jaw locking--case report and literature review. *Journal of Veterinary Dentistry* 2004; 21: 147-158.

- Beam RC, Kunz DA, Cook CR, et al. Use of three-dimensional computed tomography for diagnosis and treatment planning for open-mouth jaw locking in a cat. *Journal of the American Veterinary Medical Association* 2007; 230: 59-63.
- Soukup JW, Snyder CJ, Gengler WR. Computed tomography and partial coronoideectomy for open-mouth jaw locking in two cats. *Journal of Veterinary Dentistry* 2009; 26: 226-233.
- Macready DM, Hecht S, Craig LE, Conklin GA. Magnetic resonance imaging features of the temporomandibular joint in normal dogs. *Veterinary Radiology and Ultrasound* 2010; 51: 436-440.
- Hammond G, King A, Lapaglia J. Assessment of five oblique radiographic projections of the canine temporomandibular joint. *Veterinary Radiology and Ultrasound* 2012; 53: 501-506.
- Ryan JM, Fraga-Manteiga E, Schwarz T, Clements DN. Unilateral synostosis of the zygomaticotemporal suture associated with mandibular coronoid process impingement in a dog. *Veterinary Comparative Orthopaedics and Traumatology* 2013; 26: 421-424.
- Arzi B, Cissell DD, Verstraete FJ, Kass PH, DuRaine GD, Athanasiou KA. Computed tomographic findings in dogs and cats with temporomandibular joint disorders: 58 cases (2006-2011). *Journal of the American Veterinary Medical Association* 2013; 242: 69-75.
- Villamizar-Martinez LA, Villegas CM, Gioso MA, Reiter AM, Patricio GC, Pinto AC. Morphologic and morphometric description of the temporomandibular joint in the domestic dog using computed tomography. *Journal of Veterinary Dentistry* 2016; 33: 75-82.
- Strøm PC, Arzi B, Cissell DD, Verstraete FJ. Ankylosis and pseudoankylosis of the temporomandibular joint in 10 dogs (1993-2015). *Veterinary and Comparative Orthopaedics and Traumatology* 2016; 29: 409-415.
- Nutt AE, Anderson T, Gracis M, et al. Open-mouth jaw locking in cats: a literature review and use of CT in three cases. *Journal of Feline Medicine and Surgery* 2018; 20: 1180-1191.
- Lee DB, Watson KD, Wilson S, Arzi B. Diagnostic imaging in veterinary dental practice. *Journal of the American Veterinary Medical Association* 2020; 256: 51-55.
- Zavodovskaya R, Vapniarsky N, Garcia T, Verstraete FJM, Hatcher DC, Arzi B. Intra- and extra-articular features of temporomandibular joint ankylosis in the cat (*Felis catus*). *Journal of Comparative Pathology* 2020; 175: 39-48.
- Aghashani A, Verstraete FJM, Arzi B. Temporomandibular joint gap arthroplasty in cats. *Frontiers in Veterinary Science* 2020; 7:482. doi: 10.3389/fvets.2020.00482.
- Delesalle Q, Lopes AM, Gawor JP, Zani D, Pereira HM, Mestrinho LA. Comparative morphometry of the temporomandibular joint in brachycephalic and mesocephalic cats using multislice CT and cone beam CT. *Journal of Feline Medicine and Surgery* 2020 Oct 8:1098612X20960657. doi: 10.1177/1098612X20960657.
- Villamizar-Martinez LA, Villegas CM, Gioso MA, Baroni CO, Unruh SM, Cohen EB, Reiter AM. Radiographic assessment of the feline temporomandibular joint with oblique projections: A preliminary ex vivo study. *Journal of Veterinary Dentistry* 2021; 38: 199-207.
- McKay RM, Vapniarsky N, Hatcher D, Carr N, Chen S, Verstraete FJM, Cissell DD, Arzi B. The diagnostic yield of cone-beam computed tomography for degenerative changes of the temporomandibular joint in dogs. *Frontiers in Veterinary Science* 2021 Aug 4;8:720641. doi: 10.3389/fvets.2021.720641.

Cortical Blindness

- Scrivani PV, Martin-Flores M, van Hatten R, Bezuidenhout AJ. Structural and functional changes relevant to maxillary arterial flow observed during computed tomography and nonselective digital subtraction angiography in cats with the mouth closed and opened. *Veterinary Radiology and Ultrasound* 2014; 55: 263-271.
- Martin-Flores M, Scrivani PV, Loew E, Gleed CA, Ludders JW. Maximal and submaximal mouth opening with mouth gags in cats: implications for maxillary artery blood flow. *Veterinary Journal* 2014; 200: 60-64.

Miscellaneous

- Bright SR, Mellanby RJ, Williams JM. Oropharyngeal stick injury in a Bengal cat. *Journal of Feline Medicine and Surgery* 2002; 4: 153-155.
- O'Reilly A, Beck C, Mouatt JG, Stenner VJ. Exophthalmos due to a wooden foreign body in a dog. *Australian Veterinary Journal* 2002; 80: 268-271.
- Smith MM, Smith EM, La Croix N, Mould J. Orbital penetration associated with tooth extraction. *Journal of Veterinary Dentistry* 2003; 20: 8-17.
- Nicholson I, Halfacree Z, Whatmough C, Mantis P, Baines S. Computed tomography as an aid to management of chronic oropharyngeal stick injury in the dog. *Journal of Small Animal Practice* 2008; 49: 451-457.
- Potanas CP, Armbrust LJ, Klocke EE, Lister SA, Jimenez DA, Saltyak KA. Ultrasonographic and magnetic resonance imaging diagnosis of an oropharyngeal wood penetrating injury in a dog. *Journal of the American Animal Hospital Association* 2011 Jan-Feb;47(1):e1-6. doi: 10.5326/JAAHA-MS-5506.
- Robinson W, Shales C, White RN. The use of rigid endoscopy in the management of acute oropharyngeal stick injuries. *Journal of Small Animal Practice* 2014; 55: 609-614.
- Vansteenkiste DP, Lee KC, Lamb CR. Computed tomographic findings in 44 dogs and 10 cats with grass seed foreign bodies. *Journal of Small Animal Practice* 2014; 55: 579-584.
- Troxel M. Iatrogenic traumatic brain injury during tooth extraction. *Journal of the American Animal Hospital Association* 2015; 51: 114-118.
- Lamb CR, Pope EH, Lee KC. Results of computed tomography in dogs with suspected wooden foreign bodies. *Veterinary Radiology and Ultrasound* 2017; 58: 144-150.
- Winer JN, Verstraete FJM, Cissell DD, et al. Clinical features and computed tomography findings are utilized to characterize retrobulbar disease in dogs. *Frontiers in Veterinary Science* 2018 Aug 21;5:186. doi: 10.3389/fvets.2018.00186.