Die folgenden Puplikationen wurden bei der ÖGTZ Tagung am 10. Oktober 2021 diskutiert:

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.
In humans, cleft palate (CP) is one of the most common malformations. Although surgeons use palatoplasty to close CP defects in children, its consequences for subsequent facial growth have prompted investigations into other novel surgical alternatives. The animal models of CP used to evaluate new surgical treatments are frequently obtained by creating surgically induced clefts in adult dogs. This procedure has been ethically criticized due to its severity and questionable value as an animal model for human CP. Dogs born with a congenital CP would be much better for this purpose, provided they developed CP at a sufficient rate and could be fed. Up until now, feeding these pups carried the risk of aspiration pneumonia, while impeding normal suckling and chewing, and thus compromising orofacial growth. We developed a technique for feeding dog pups with CP from birth to the time of surgery using two old Spanish pointer dog pups bearing a complete CP. This dog strain develops CP in 15-20% of the offspring spontaneously. Custom-made feeding teats and palatal prostheses adapted to the pups' palates were made from thermoplastic plates. This feeding technique allowed lactation, eating and drinking in the pups with CP, with only sporadic rhinitis. To determine whether the use of this palatal prosthesis interferes with palatal growth, the palates of three littermate German shorthaired pointer pups without CP, either wearing or not wearing (controls) the prosthesis, were measured. The results showed that the permanent use of this prosthesis does not impede palatal growth in the pups.

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.
Cleft palate in dogs is a congenital defect that mostly leads to euthanasia of the affected puppy. If an attempt is made to raise the puppy, it is generally fed via an orogastric tube. Here, we describe the management of cleft palate in three puppies (two Boxers, one Collie) using a customised temporary prosthesis, which allowed the puppies to be bottle-fed and successfully raised by their owners (Cases 2 and 3) and the author (Case 1). The temporary palatal prosthesis was manufactured from a mouthguard intended for human children, which is made of thermoplastic silicone. The preparation procedure was simple and cost-effective. All puppies underwent corrective surgery at 5–6 months of age. After surgery, one of the Boxer puppies showed mandibular mesioclusion, while the other two showed no aberrations. All puppies gained the same amount of weight as their littermates, although the weight gain of the two Boxers was slower than that of their littermates. In summary, this case report describes an easy and effective way to raise puppies with cleft palate until corrective surgery can be performed.

Fink L, Lewis JR, Reiter AM. Biopsy of the temporal and masseter muscles in the dog. *Journal of Veterinary Dentistry* 2013; 30: 276-280.
No abstract available.

Castejon-Gonzalez AC, Soltero-Rivera M, Brown DC, Reiter AM. Treatment outcome of 22 dogs with masticatory muscle myositis (1999-2015). *Journal of Veterinary Dentistry* 2018; 35: 281-289.

Medical records of dogs diagnosed with masticatory muscle myositis (MMM) at Ryan Veterinary Hospital of the University of Pennsylvania during a period of 17 years (from 1999 to 2015) were reviewed. Twenty-two dogs were included in this retrospective case series study. Immunosuppressive doses of prednisone were prescribed to all dogs. Twenty dogs had full recovery of masticatory function. The mean (SD) improvement in the vertical mandibular range of motion (vmROM) was 5.3 (3.1) cm during the first 4 weeks of treatment (weeks 1-4) and 2.8 (2.2) cm during the subsequent 8 weeks (weeks 5-12). The vmROM continued to improve for several more months. Six dogs had a relapse, but the clinical signs were more severe in dogs when no longer receiving prednisone compared to dogs still on prednisone at the time of relapse. When diagnosed and treated appropriately, MMM has a good prognosis with relatively quick return to masticatory function. Early discontinuation of prednisone therapy should be avoided. Approximately 1 year of therapy is recommended prior to discontinuing the medication. Educating the client about how to perform muscle palpation, determine vmROM at home, recognize signs of pain, and notice behavioral changes may help in the early detection of relapses.

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.
Temporomandibular joint (TMJ) ankylosis is defined as fibrous or bony fusion of the mandibular head of the condylar process and the mandibular fossa of the squamous part of the temporal bone. Ankylosis of the TMJ may be intraarticular, extraarticular, or both. The objective of this report is to describe the surgical planning, technique, and outcome of gap arthroplasty for extensive TMJ ankylosis in cats. Client-owned cats (n = 7) were examined clinically and surgical planning included the use of cone-beam computed tomography (CBCT) and tridimensional (3D) printed models. In six of the seven cats, temporary tracheostomy intubation was required. Gap arthroplasty included zygomectomy, coronoidectomy, condylectomy, as well as fossectomy (removal of the mandibular fossa of the temporal bone) and was performed using a piezosurgical unit. In all seven cats, gap arthroplasty was performed without surgical complications. In addition, a clinically acceptable mouth opening was achieved in all cases. However, a noticeable mandibular instability was observed. Medium-term follow-up demonstrated acceptable quality of life with one case of recurrence of ankylosis requiring repeated bilateral surgery, and a second case with recurrence of ankylosis not requiring surgical intervention at the time of manuscript preparation. We concluded that TMJ gap arthroplasty in cats is a salvage procedure indicated in cases of severe intraarticular and extraarticular ankylosis. Diagnostic imaging by means of CBCT and 3D printing are essential for precise surgical planning. The use of a piezosurgical unit allows for safe and precise ostectomy. Clinically, despite the resulting mandibular instability, appropriate prehension of food and water was possible.

Villamizar-Martinez LA, Chia H, Robertson JB, Villegas CM, Reiter AM. Comparison of unilateral rostral, middle and caudal segmental mandibulectomies as an alternative treatment for unilateral temporomandibular joint ankylosis in cats: an ex vivo study. *Journal of Feline Medicine and Surgery* 2021; 23: 783-793.
Objectives: Temporomandibular joint ankylosis (TMJA) is the partial or complete inability to open the mouth due to intra- or extra-articular fibrous, bony or fibro-osseous tissue proliferation. Surgical procedures such as gap arthroplasty, condylectomy or wide extra-articular osteotomy have been recommended to treat this condition; these techniques are challenging, time-

consuming and have been occasionally associated with postoperative recurrence, severe periarticular neurovascular iatrogenic trauma and death. Segmental mandibulectomy had previously been recommended as an alternative option for unilateral TMJA, but the location of mandibulectomy and extent of bone removal from the mandible region have not been mentioned in the literature. This study aimed to validate the area of the mandibular body (rostral, middle or caudal) and amount of bony tissue that should be osteotomized during a segmental mandibulectomy for treatment of unilateral TMJA in cats.
Methods: In this block study, 30 cadaver heads of domestic shorthair cats were randomly divided into three groups of 10 specimens each based on the mandibular region that would undergo segmental mandibulectomy (rostral, middle and caudal). The size of the removed mandibular segment and pre- and postoperative vertical range of mandibular motion were compared for statistical purposes.
Results: A significant statistical difference was observed between the pre- and postoperative vertical range of mandibular motion between the rostral, middle and caudal segmental mandibulectomies (P <0.001). The mean postoperative recovered range of mandibular motion for the rostral, middle and caudal segmental mandibulectomies was 50.4%, 81.9% and 90.4%, respectively.
Conclusions and relevance: The caudal segmental mandibulectomy showed the highest postoperative vertical range of mandibular motion. The removal of a minimum of 1.2 cm of the caudal mandibular body was required to achieve nearly full recovery of presurgical mouth opening in the specimens of this study. The caudal segmental mandibulectomy may eliminate the risk of iatrogenic periarticular neurovascular damage inherent to more invasive surgeries performed at the temporomandibular joint area. When performed unilaterally, the caudal segmental mandibulectomy is a viable surgical alternative that may show a similar outcome to other surgical techniques.