

Enamel Hypoplasia - Offering an alternative to extracting teeth.

AAPS is proud to announce that we are now offering more advanced dental procedures to help with the rise in dental conditions and abnormalities.

An example of a successful advanced procedure is described below.

Case Study - Eedie - 10 month old Pug X diagnosed with generalized enamel hypoplasia.

History

Eedie came through the AAPS shelter as a puppy and was previously diagnosed and treated for septic arthritis at approximately 16 weeks of age.

At the age of 6-7 months, her new owner had noted that her adult teeth that were erupting were discoloured and was brought back for a dental consult.

Clinical Examination

On dental examination, Eedie was noted to have abnormal looking crowns with dull and roughened enamel with significant dentine exposure. There appeared to be significant calculus accumulation on these roughened surfaces as well. This had contributed to discolouration of her teeth and progression of periodontal disease. She was also noted to have a traumatic Class III malocclusion, with her upper incisors impacting onto the lingual soft tissue area of her mandible.

Assessment

Based on history and clinical findings, Eedie was suspected to have generalized enamel hypoplasia, likely secondary to pyrexia that she developed as a puppy with septic arthritis. Patients with this condition without treatment will have ongoing tooth sensitivity, increased wear of teeth and pulp exposure leading to endodontic disease and chronic pain and infection. The roughened areas will also lead to increased plaque accumulation resulting in periodontitis.

Treatment

Eedie under a Complete Oral Health Assessment and Treatment (COHAT) under general anaesthetic, where she had all her teeth assessed for developing periodontal and endodontic disease via dental probing and full mouth intra-oral radiographs. Thankfully no evidence of endodontic disease was noted, and Eedie was able to have her the dentinal exposure sealed then restored with resin based composite (fillings). This was performed after having her teeth ultrasonically scaled on a low power and polished with glycerin free



Pre-Operative Photo



Eedie - Post operative Restorations

pumice. She also has had previously extraction of upper incisors that were causing trauma to lingual areas of her mandible.

Post Operative

Eddie's owners were advised to feed soft food allow her restorations to fully harden, and performing oral hygiene at home.

Any patient that has restorative work done is radiographs performed twelve months¹ after treatment has been successful and teeth have also allows us to monitor any composite that expose dentinal tubules.



for 5 days post treatment to afterwards to continue

recommended to have dental the procedure to ensure continued to stay vital. This may have come off and re-

Discussion

Development of this condition can be Amoeogenesis or development of enamel 'bell' stage of odontogenesis². Production of by the amoeloblasts can be interrupted by heritable causes.

Localised causes include trauma to the infection/inflammation. This generally results defects localized to one tooth. A common enamel hypoplasia is iatrogenic, secondary to exodontia of persistent or retained deciduous canines³.

Generalized causes include severe nutritional deficiencies and persistent pyrexia during the crucial period of ameogenesis and results in reduced to weakened enamel production only to those ameoloblasts actively producing enamel at the time of insult.⁴



explained by odontogenesis. occurs during the 'cap' and enamel rods and calcification localized, generalized and

developing tooth bud and root in moderate to severe enamel known cause of localized

Advanced procedures currently performed

ENDODONTIC TREATMENT

- Treatment for uncomplicated crown fractures with restorations
- Full mouth restorations
- Crown Height Reduction and Vital Pulp Therapy

PERIODONTAL TREATMENT

- Complicated extractions such as toy breeds with risk of jaw fracture
- Feline Chronic Gingivostomatitis
- Furcation treatment and bone grafts
- Dentigerous Cyst removal

¹ Gorrel C. *Veterinary dentistry for the general practitioner*. Elsevier Health Sciences, 2004;69-86.

² Fehrenbach M. J. Popowics T. & Bath-Balogh M. (2016). *Illustrated dental embryology histology and anatomy* (4th ed.). Elsevier/Saunders.

³ Reiter A. M. Gracis M. & British Small Animal Veterinary Association. (2018). *BSAVA Manual of canine and feline dentistry and oral surgery* (Fourth). British Small Animal Veterinary Association.

⁴ editors, Robert B. Wiggs, Heidi B. Lobprise. (1997). *Veterinary dentistry: principles and practice*. Philadelphia :Lippincott-Raven Publishers

ONCOLOGICAL TREATMENT

- Oral soft tissue mass removal
- Segmental maxillectomy
- Rostral Mandibulectomy

ORTHODONTIC TREATMENT

- Juvenile orthodontics
- Crown Height Extensions

Services soon to be offered

- Root Canal Therapy
- Jaw Fracture Repair

Dr. Suruchi Perera, graduated in 2015, has her MANCVS in Small Animal Dentistry and Oral Surgery and is keen to help you and your clients out by spreading knowledge regarding dentistry in our veterinary patients, enabling your clients to have pets with pain free functional mouth.

****Disclaimer - Dr. Suruchi Perera is NOT a dental specialist, and if you are considering referring any dentistry cases to AAPS, please ensure your clients are aware of this. There are only two board certified dental specialists in Victoria, Dr David Clarke and Dr Robert Menzies.****