Equipment and Treatment of Periodontal Disease

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1. Introduction

Periodontal disease is a painful condition affecting young, middle aged, and old horses.1-3 Horses are stoic and oftentimes may not show outward signs of disease. This makes the oral examination critical in identifying this painful condition. Horses that do show outward signs may have a history of quidding, eating slowly, holding their heads sideways while chewing, or having a thin body condition.4 Periodontal disease begins as “food stasis”. Food stasis is the accumulation of feed material in the oral cavity adjacent to teeth, most often in the form of a diastema. This decaying feed provides an acidic environment for plaque forming bacteria, leading to gingival recession, periodontal attachment loss, and, in severe cases, periodontitis.2,3 Left untreated, periodontal disease leads to tooth loss and systemic disease. These diastema, pleural diastemata, may be present in horses of any age, may affect incisors or cheek teeth, and may be congenital or acquired. They are often associated with a decreased angulation of the cheek teeth, missing teeth, fractured teeth, aging horses, and erupting cheek teeth. Prevention of disease is the gold standard of veterinary medicine. Routine oral exams and effective odontoplasty (teeth floating) are paramount in preventing abnormal food accumulation. The prevention of overlong teeth, excessive wear of teeth in opposing quadrants, steps, hooks, and other areas of inefficient mastication all play a role in avoiding periodontal disease.4 Reduction of these orthodontic abnormalities must be considered when forming a treatment plan.

2. Treatment Planning

Any treatment plan for periodontal disease must begin with proper staging/grading. Advanced cases with significant attachment loss and loose teeth require extraction. Another manuscript of this session5 discusses the stages of periodontal disease (Table 1) as well as a tooth mobility index (Table 2). A thorough oral exam coupled with diagnostic quality dental radiographs provide the information needed to stage the periodontal disease. Specifically, the evaluation of bone loss and widened periodontal ligament spaces are best visualized on open mouth oblique views. These radiographic projections and how to obtain them are the topic of another manuscript in this session.6 The focus of this paper will be those cases that have not advanced to the point of extraction and the efforts that may be made to prevent tooth loss through the treatment of diastemata. Diastemata are common in both the incisors and cheek teeth of horses. Treatment of periodontal disease associated with diastemata must include the following: 1. Reduction of any abnormal clinical crown overgrowths (steps, ramps, protuberant transverse ridges); 2. Complete cleaning of the