

The Future of Veterinary Equine Dentistry

- *Australian Veterinary Equine Dentistry Workshop*

On behalf of my colleagues Brendon Bell, Brendon Hickman and myself, I would like to thank the PYE foundation and the NZERF for the grants that we received to ensure a good Kiwi showing at the dental workshop. I'm sure it has been largely responsible for kick starting a strongly rejuvenated interest in equine dentistry in vets throughout NZ.

The workshop was extremely well organised, the quality of teaching material was excellent and we had a high practical component. This would have to be some of the best continuing education you could do as a vet!!

- *Quality speakers*

We were fortunate to have 2 world renowned speakers on equine dentistry. Namely B.A Rucker who is from the USA and has produced some wonderful educational material in the form of CD and DVD's and has a wealth of knowledge. Secondly we had associate professor Gary Wilson who is very well known in Australia with vast practical and teaching experience in dentistry, not only in equines but also a number of other species. Oliver Liyou is a equine dental practitioner with excellent experience who hosted and ran the conference. He also was heavily involved in the lecturing and practical components of the course.

- *Large practical component*

Oliver was kind enough to organise a large number of his clients to bring in a 100 horses over 2 days for our practical part of the course. We had a large number of experienced tutors with a ratio of slightly less than 1 tutor per pair of workshop participants.

- *Kiwi contingent*

It was good to see a number of Kiwis at the workshop. There were 6 of us in total from Invercargill to Whangarei with a good spread. This bodes well for quality dentistry being available throughout the country.

- *Revival of equine dentistry in vets*

Since the course in Australia there has been good communication amongst the participants and other vets in the country. We have put forward the idea of setting up an equine dentistry sub group to the NZEVA.

Ian Dacre has recently returned to NZ from a 5 yr posting with Paddy Dixon at The Royal Dick Vet School, Edinburgh University. He has a wealth of knowledge, experience and is keen to help vets learn quality equine dentistry. With the number of vets becoming interested in providing quality dentistry it looks good for the future.

Another vet equine dental course has been scheduled at Massey for later in the year.

essential. Only qualified vets have the cardinal knowledge to be able to assess the patient with a complete overall view and choose appropriate action including:

- Legally administer sedation allowing detailed examination and treatment.
- Further diagnostics eg radiography, endoscopic examination.
- Legally use local anaesthesia and nerve blocks for painless procedures.
- Legally prescribe drugs for pain relief and treatment of infection.
- Ability to carry out more advanced procedures eg pulp capping, diastemata treatment etc.
- Assess a different body system if clinical signs indicate this.

- **Examination**

- It is important to note that the key to good dentistry is the ability to have an extremely good view of the whole mouth. Visual based dentistry.
- Sedation
 - Good sedation allows detailed exam including use of a pick to examine periodontal pockets and diastema [gap between teeth]
- Essential equipment:
 - A good light source that lights up the whole mouth. Magnetically attached to the speculum or worn on the head, but bright is essential.
 - Dental pick to clean out pockets/gaps and to assess depth of pockets.
 - Mirror to allow examination of the whole of the mouth.
 - A speculum [gag] to allow good access to the whole mouth.
- Ancillary equipment
 - Radiography to look at hidden structures for example periodontal space or tooth roots.
 - Endoscope to look for signs of sinus discharge etc.

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- **Treatment**

- Equipment and procedure
 - Power equipment has given the equine dentist the ability to reduce tooth material rapidly. Benefits of this are :
 - More time to do a detailed examination, diagnose and chart tooth problems = better dentistry.

- Achieve the correction of serious overgrowths in reasonable time.
 - Less time with the mouth open = more comfort for the horse.
- Hand floats will do the same job in most cases but take considerably longer.
- Good speculum for complete access to the whole mouth.
- Good light source because this is visual based. This allows careful and appropriate reduction of tooth material.
- Extractions
 - Good sedation and local nerve blocks allow a pain free procedure. Now most cheek teeth are removed via the mouth rather than repulsed from the sinus cavities. This approach has a far lower complication rate.
 - Molar spreaders to break down the periodontal ligament, molar extractors and patience allow the removal of most cheek teeth via the mouth.
- Sharp enamel points, hooks, ramps, waves, steps, dominant teeth, incisor correction etc can all be corrected easily with power equipment and visual based dentistry.
- Periodontal pockets and diastema are investigated thoroughly with a detailed examination and further diagnostics like radiography. Some treatments are showing early promise eg diastemata which widens the gap between affected teeth allowing food to cycle rather than becoming trapped and rotting.
- Some potential complications
 - Nerve pulp exposure from over reduction of cheek or incisor teeth
 - Large corrections often need to be done in several visits to allow retraction of the nerve pulp and laying down of secondary dentine.
 - Incisor nerve pulps are often close to the occlusal surface so reduction needs to be done with extreme care.
- Removing too much occlusal surface reducing the finite life of the tooth
- Old horses have very little reserve crown so large corrections are not possible.
- Hence knowledge of anatomy and physiology is important !!

- ***Owners expectations***
 - With improved knowledge, interest and modern equipment the quality of dentistry is very good and a good response is seen in the majority of cases. This leads to a satisfied owner who sees the value in modern dentistry.
 - Getting the owners involved by careful explanation and letting them feel the teeth before and after the dental helps to improve their knowledge.
 - More and more horse owners are aware of what can be done and are demanding a quality dentals. The performance dental is becoming the norm especially in sport horses.
 - A 'performance float' is a dental that has assessed function, symmetry and balance of cheek teeth and incisors then treated as indicated to maximise performance for the horse during eating and riding.

- The days of throwing a hand float into the horse's mouth with no gag have gone and are far from professional. By careful horse owner education the word will be spread on how beneficial good dentistry is and ***the ultimate beneficiaries will be our equine population.***

- **This course was extremely beneficial to all the attendees and on behalf of Brendon Bell, Brendon Hickman and myself I wish to once again thank the PYE foundation and NZERF for their support in helping us attend this equine dental course in Australia.**



The Kiwi contingent with the main speakers during a practical session.

Yours faithfully

Llyn Powell