Oriental Channel Diagnosis in Foot Lameness of the Equine Forelimb

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Certainly categories of foot lameness have a high percentage of palpable, diagnostic sites of referred pain, known as trigger points in western medicine. The mechanism for the propagation of trigger points referable to foot lameness is dependent on structures within the distal interphalangeal joint. Author’s address: Middleburg Equine Clinic, Box 1100, Middleburg, VA 20118. © 1997 AAEP.

1. Introduction
The essence of oriental medicine is the diagnostic use of subtle and sometimes bizarre findings to arrive at a diagnosis. The bubble pattern in swirled urine, the tortuosity of sublingual veins, or minute pulse changes could all be used in appropriate circumstances. Equine acupuncturists have emphasized careful palpation techniques of the epaxial musculature in a procedure called oriental channel diagnosis (CD). In CD, if abnormal sensitivity is determined at a diagnostic acupoint, then it is inferred that the acupuncture channel governing the abnormal site is unbalanced, and, therefore there is pathology along the anatomic course of that channel. Opinions vary as to the meaning of the presence of unbalanced channels.1-4 In the metacarpophalangeal joint there is a range of channel imbalance that is confirmable by western methods.5 If the palpable imbalance can be changed by intra-articular medication, then the source of the diagnostic imbalance must be within the treated joint. The relationship of channel imbalance to digital pain can be clarified by the use of intra-articular anaesthetics, thus combining western and oriental diagnostic techniques.

2. Methods
189 lame (grade II-IV/V) horses from a general equine practice in Virginia were examined by the author by using traditional manual palpation of the acupuncture channels. The forelimb channels were graded on the basis of the reactivity of five acupoints. The first is the large intestine (LI) 18: this is an acupoint at the caudal aspect of Viborg’s triangle on the ventral aspect of the m. sternocleidomastoideus at the junction of the third (C3) and the fourth (C4) cervical vertebrae.2 The second is the small intestine (SI) 16: this is an acupoint located posterior to the angle of the mandible in a depression on the dorsal border of the sternocleidomastoideus at the junction of the third (C3) and the fourth (C4) cervical vertebrae.2 The third is the triple heater (TH) 15: this is an acupoint located on the cranial border of the scapula in a depression approximately 8-10 cm caudal to LI 18.2 The fourth is the lung (LU) channel-associated point, urinary bladder (BL) 42: this is an acupoint located in a depression over the seventh intercostal space just caudal to the scapular carti-
lage in a muscular groove between the m. longissimus thoracis and the m. iliocostalis thoracis, approximately 20 cm from the dorsal midline. The fifth is the pericardium (PC) channel-associated point, urinary bladder (BL) 14: this is an acupoint approximately 12 cm lateral to the midline and parallel to the caudal border of the dorsal spinous process of the ninth thoracic vertebra.

The patients were evaluated with western methods to establish an anatomical site of pain, and then each horse was placed in one of five categories: (1) chronic heel lameness (CHL), (2) acute heel lameness (AHL), (3) laminitis, (4) subsolar abscess, and (5) miscellaneous. All horses with channel imbalance were examined with intra-articular anaesthesia of the distal interphalangeal joint. A chi-square analysis was used to assess different frequencies of channel imbalance, with \( p < 0.05 \).

3. Results
Channel imbalance was significantly more prevalent in cases of CHL, AHL, and laminitis than in subsolar abscesses and miscellaneous lamenesses (see Table 1).

4. Discussion
What specific structures correlate with reactive acupoints, and under what circumstances are these acupoints activated? When channel imbalance was present in foot lameness, the reactive points were temporarily abolished after intra-articular anaesthesia of the distal interphalangeal joint in all cases. Mepivacaine hydrochloride temporarily blocks all neural transmission in the area under the influence of this drug. If the drug changes channel imbalance, then specific intra-articular neuroreceptors would seem to play an important role in the propagation of painful acupoints.

Several authors have written in English concerning the meaning of channel imbalance in foot lameness. Cain as well as Flemming4 and Snader3 have assumed that any pathology along the theoretical course of the meridian should result in a corresponding, palpable reactive diagnostic point. This supposition was not supported by the data of this study.

The subcategories CHL, AHL, and laminitis were related to channel imbalance only insofar as there was an accompanying intra-articular component to these lamenesses. The site of pathology in horses with subsolar abscesses was extra-articular. Subsolar abscess horses were noteworthy in their absence of channel imbalance despite painful lesions, thus showing that severity of pain and extra-articular pathology were not related to the presence of channel imbalance.

In this study the only source of channel imbalance

<table>
<thead>
<tr>
<th>Lameness</th>
<th>No. with Lameness</th>
<th>No. with Channel Imbalance</th>
<th>Percent Channel Imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>189</td>
<td>78</td>
<td>41</td>
</tr>
<tr>
<td>CHL</td>
<td>30</td>
<td>23</td>
<td>69</td>
</tr>
<tr>
<td>AHL</td>
<td>45</td>
<td>31</td>
<td>69</td>
</tr>
<tr>
<td>Acute laminitis</td>
<td>29</td>
<td>24</td>
<td>83</td>
</tr>
<tr>
<td>Subsolar abscess</td>
<td>29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>56</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1. Anatomical Sites of Pain
in the forelimb digit was the distal interphalangeal joint. Somatovisceral, local, and neurogenic pain can be effectively differentiated from pain related to digital articular structures with or without overt lameness by diagnostic local anesthesia.

References