Investigation of inflammatory markers in horses with acute abdominal pain

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Investigation of inflammatory markers in horses with acute abdominal pain

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Objectives

Investigation of the diagnostic and prognostic potential of serum and peritoneal fluid (PF) levels of serum amyloid A (SAA) and haptoglobin in horses with colic

Methods

- SAA and haptoglobin measured in serum and PF samples from 61 colic horses and 19 healthy horses.
- Colic cases classified according to diagnosis, treatment and outcome.
- Concentrations are log-transformed and compared between groups with student’s t-test and ANOVA.

Results

Conclusions

The peritoneal fluid concentrations of SAA and haptoglobin are more indicative of diagnosis, treatment necessary and outcome than the serum concentrations.

Combining SAA and haptoglobin levels in peritoneal fluid seems to be helpful as diagnostic and prognostic markers in colic horses and should be investigated further.

<table>
<thead>
<tr>
<th>diagnosis</th>
<th>n (Serum)</th>
<th>Median (range)</th>
<th>n (PF)</th>
<th>Median (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>19</td>
<td>0.3 (0.1-1.6)</td>
<td>11</td>
<td>0.1 (0.1-0.2)</td>
</tr>
<tr>
<td>Colic</td>
<td>61</td>
<td>2.8 (0.1-3347)</td>
<td>57</td>
<td>0.2 (0.1-1493)</td>
</tr>
<tr>
<td>P-value</td>
<td>&lt;0.0001</td>
<td></td>
<td>&lt;0.0001</td>
<td></td>
</tr>
</tbody>
</table>

- PF SAA was higher in horses with infectious conditions compared to all other diagnoses (p<0.001)
- PF haptoglobin was higher in both strangulating (p=0.004) and infectious conditions (p=0.009) compared to simple obstructions.