Review for usefulness on animals via Pettrust (auto NIBPM for pets)

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Background & purposes
Taking BP measuring is for testing safety of medicine used on animals, especially for poisoning effects of medicine on big animals as well as for usefulness inspected by ECG on influence on circulatory system. This time, laboratory purchased one set of Pettrust, auto NIBPM, manufactured by ASETER Electric Co., Ltd; therefore, a few checks on this machine has been reported.

Materials & methods

<table>
<thead>
<tr>
<th>Method of measuring</th>
<th>Oscillometric methods</th>
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<tbody>
<tr>
<td>Range of BP measuring</td>
<td>30 - 300 mmHg</td>
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<tr>
<td>Range of pulse measuring</td>
<td>32 - 240 bpm</td>
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<tr>
<td>Size &amp; weight</td>
<td>19.0 (H) 9.0 (W) 5.0 (D) cm, 475 g</td>
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<tr>
<td>others</td>
<td>Cuff size: selection of 7 sizes (2.05-5.55cm); Memory: 999 sets</td>
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Taking BP measurements for 5 Beagle dogs aged 9-13 with Pettrust and BP100D (NIBPM for pets manufactured by FUKUDA M.E KOGYO CO., LTD); comparing with BP rates of these two NIBPMs such as SYS, DIA, MAP, and BPM. BP measuring for 2 days- in the morning & afternoon, total: 4 times. (Two NIBPMs had been used one followed by the other to measure on each individual. And, priority of measuring on the second day was changed from the first day.) One time measure results three readings and average the readings for evaluation purpose. The measuring is under anesthesia in position of lying down on their right side.

Also, during surgery done by Pettrust, observation and measurements have been made on 3 Beagle dogs with Telemetry transmitter implanted and intravenous infusion (under anesthesia of Pentobarbital after atropine therapy taken)

Results

Except for pulse rate, all other parameters of Pettrust compared to BP100D (average rates of these 5 dogs measured at each point of time) are 10-20% lower, whose BP rates are rather closer to those measured by IBP.
During surgery, BP changes of 3 dogs are almost the same which is considered useful by measuring through Pettrust on BP monitoring while surgery is being made.
It is considered very easy to use; therefore, it relatively takes shorter time when measuring BP rates. Also, animals suffer from lesser burden on Pettrust's BP monitoring than all other BP monitors previously used.

Reference

- Research report issued by Shizuoka Experimental Animal Research Association
  http://www1a.biglobe.ne.jp/shizudou/shizudoutop.html
- Original Japanese research report
- Research done by BOZO RESEARCH CENTER
  http://www.bozo.co.jp/english/