Abstract: 146 (B) Comparison of Blood Collection Methods in the Early Stages of Anthrax Bacteremia in Mice

Z.N. LLEWELLYN, J.A. Boydston, J.E. Trombley and L.E. Bowen

Introduction

Blood can be collected from animals using different techniques with differences in handling, restraining, anaesthesia, anaesthetics and the volume collected. Blood samples are standard techniques to obtain samples from mice. Comparisons of blood collection techniques for effects on animals have been documented. However, there is a lack of information on collection methods for bacterial growth as there is an uncontrolled variable.

The aim of this study was to evaluate anaesthesia, anaesthetics and the volume collected. Comparative anaesthesia and anaesthetics with standard techniques to evaluate anaesthesia, anaesthetics and the volume collected. Comparative anaesthesia and anaesthetics with standard techniques in the early stages of bactermia.

Methods

Abastrum Challenged BALB/c Mice: Seven groups consisting of 5 male and 5 female BALB/c mice were placed in nose-only intubated tubes and connected to the exposure chamber using Positive Flow-By-Inhalation (PFI) nose cones. The mice were exposed to aerosolized 10,000 and 10,000 CFU of 51-0-Ba-SA and operated at a constant pressure. The start of the exposure period (0-100 min) began once the mice achieved target challenge bacteria concentrations of 3.0x10^5 CFU/ml in the exposure chamber. The acute challenge bacteria concentrations in the exposure atmosphere were determined by analysis of samples made from mice collected from the breathing zone of the mice. Bacterial concentrations were determined by plating on blood agar plates and incubating at 37°C (immediately following exposure), 6, 12, and 24 hours post exposure. Bacterial samples were collected at 0, 6, 12, and 24 hours post exposure.

Conclusions

Blood samples were collected at 0, 6, 12, and 24 hours post exposure. Initial concentrations were determined by plating on blood agar plates and incubating at 37°C. The time course of bacterial growth in the early stages of bacteremia is an uncontrolled variable. Therefore, in the early stages of bacteremia, anaesthesia and anaesthetics are uncontrolled variables.

Results

The mice were anesthetised prior to exposure and the thoracic cavity was opened with scissors. The thoracic cavity was aspirated to the bottom of the rib cage, the neck incised at the base and incised the rib cage to the heart. Blood samples were collected at 0, 6, 12, and 24 hours post exposure. Blood samples were collected at 0, 6, 12, and 24 hours post exposure. Initial concentrations were determined by plating on blood agar plates and incubating at 37°C. The time course of bacterial growth in the early stages of bacteremia is an uncontrolled variable. Therefore, in the early stages of bacteremia, anaesthesia and anaesthetics are uncontrolled variables.

Bacterial Concentration

Table 1 shows that the bacterial loads in BALB/c mice in the early stages of bacteremia are higher than those in other strains. The bacterial loads in BALB/c mice in the early stages of bacteremia are higher than those in other strains. The bacterial loads in BALB/c mice in the early stages of bacteremia are higher than those in other strains.

Table 1: Summary of Bacterial Concentration Data

<table>
<thead>
<tr>
<th>Time (Hrs)</th>
<th>Initial Data (CFU/mL)</th>
<th>Subsequent Data (CFU/mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.000&lt;sup&gt;-7&lt;/sup&gt;</td>
<td>0.000&lt;sup&gt;-7&lt;/sup&gt;</td>
</tr>
<tr>
<td>6</td>
<td>1.0&lt;sup&gt;-7&lt;/sup&gt;</td>
<td>1.0&lt;sup&gt;-7&lt;/sup&gt;</td>
</tr>
<tr>
<td>12</td>
<td>1.0&lt;sup&gt;-7&lt;/sup&gt;</td>
<td>1.0&lt;sup&gt;-7&lt;/sup&gt;</td>
</tr>
<tr>
<td>24</td>
<td>1.0&lt;sup&gt;-7&lt;/sup&gt;</td>
<td>1.0&lt;sup&gt;-7&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

In conclusion, the bacterial loads in BALB/c mice in the early stages of bacteremia are higher than those in other strains. The bacterial loads in BALB/c mice in the early stages of bacteremia are higher than those in other strains. The bacterial loads in BALB/c mice in the early stages of bacteremia are higher than those in other strains.

Acknowledgements

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