Enterococcus faecalis bacteremia

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Group: 9:00-10:00
Introduction

- Bacteria of the genus Enterococcus have acquired a relevant role in the last two decades, mainly due to the increase in the number of intrahospital cases, representing at present the third cause of nosocomial infection.

- Its prevalence as a nosocomial pathogen has increased due to the selection of these microorganisms in relation to the use of broad spectrum antibiotics with no enterococcal activity.
Characteristics

- Gram positive coccus
- Catalase negative
- No mobility
- Optional Anaerobic
- It can live in extreme environments of pH 9.6 and high concentrations of Salt
Methodology

- For the realization of the antibiogram was used the Kirby-Bauer method with a young cultivation of E. faecalis
- A saline dilution was performed at 0.5 on the Mcfarland scale
- An invasive seeding was performed the dilution was placed on Mueller-Hinton agar
- The following antibiotics were placed:
  * Gentamicin
  * Evofloxacin
  * Linezolid
  * Vancomycin
  * Rifampicin
- It was held for 24 hours at 37 °C
## Results

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Result (diameter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gentamicin</td>
<td>Resistant (0 mm)</td>
</tr>
<tr>
<td>Evofloxacin</td>
<td>Sensitive (25 mm)</td>
</tr>
<tr>
<td>Linezolid</td>
<td>Sensitive (35 mm)</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>Resistant (15 mm)</td>
</tr>
<tr>
<td>Rifampicin</td>
<td>Intermediate sensitivity (18 mm)</td>
</tr>
</tbody>
</table>
Conclusion

- E. faecalis is becoming increasingly resistant to conventional antibiotics since broad-spectrum antibiotics have been used against this microorganism for a long time.

- The Kirby-Bauer method is the most feasible for sensitivity testing as it is fast and reliable.

- From the results of the antiogram it can be deduced that in vitro the antibiotics of choice would be Evofloxacin, Linezolid and Vancomycin.