Biofilm Formations in Nasopharyngeal Tissues from Patients with Nasopharyngeal Osteoradionecrosis

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INTRODUCTION

There were eleven of 15 NPC patients (73%) with ORN having biofilm formations. Instead, there was only one of 12 patient noted biofilm formation in the group of NPC without ORN (8%) (P<0.01). This result showed the appearance of biofilm in the nasopharyngeal tissues from NPC patients who were diagnosed as having ORN. Further study was needed to determine the role of biofilm in the nasopharyngeal area among NPC patients.

METHODS AND MATERIALS

The specimens obtained from each patient were processed and analyzed under the fluorescence microscopy. The control group only showed some necrotic cells (red color) without biofilm matrix noted. (200x)

RESULTS

Table II. Organism Cultured from NPC Patients with ORN

<table>
<thead>
<tr>
<th>Number of Patients</th>
<th>Organism Cultured</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Methicillin-resistant Staphylococcus aureus</td>
</tr>
<tr>
<td>1</td>
<td>Candida albicans</td>
</tr>
<tr>
<td>1</td>
<td>Staphylococcus epidermidis</td>
</tr>
<tr>
<td>1</td>
<td>Staphylococcus pseudintermedius</td>
</tr>
</tbody>
</table>

CONCLUSIONS

There were twelve of 15 NPC patients (79%) with ORN having biofilm formations, which suggested that nasopharyngeal biofilm plays a role in nasopharyngeal ORN of NPC patients who were diagnosed as having ORN. Further study was needed to determine the role of biofilm in the nasopharyngeal area among NPC patients. The specimens obtained from NPC patients with and without ORN were processed and analyzed within 2 hours of collection with FilmTracer™ LIVE_DEAD® Biofilm Viability Kit (Invitrogen, Molecular Probes) and under the fluorescence microscopy. The control group only showed some necrotic cells (red color) without biofilm matrix noted. (200x)

REFERENCES


CONTACT

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Email: yjtsai önemli hücrelerinın tabakası oluşturmaktadır. Bu hücrelerin, serbest悬在液体中的细菌形成生物膜。这些细菌与固体表面紧贴。生物膜通过以下方式起作用：1. 生物膜是细菌的保护外壳，可以保护细菌不受抵抗力和抗生素的影响。2. 生物膜可以促进细菌的生长和扩散，从而在组织中形成更广泛的感染。3. 生物膜中的细菌可以产生生物膜特异性酶，这些酶可以帮助细菌抵抗抗生素。4. 生物膜中的细菌可以产生抗原物质，这些抗原物质可以引起宿主的免疫反应，从而导致感染的慢性化。

CONCLUSIONS