Toll-like receptors 2 and 4 and innate immunity in neutrophilic asthma and idiopathic bronchiectasis

We read with interest the article by Simpson et al relating parameters of innate immunity, particularly expression of toll-like receptors (TLR)2, TLR4, CD14, SP-A and cytokines interleukin (IL)8 and IL1

TLR4, CD14, SP-A and cytokines interleukin (IL)8 and IL1

ularly expression of toll-like receptors (TLR)2, TLR4 and CD14. SP-A and cytokines interleukin (IL)8 and IL1

nerve activation in neutrophilic asthma and idiopathic bronchiectasis. A total of 94 unrelated individuals with a diagnosis of idiopathic bronchiectasis recruited at the Royal Brompton Hospital, London, UK, and 86 heart/lung transplant donor controls from the Harefield Hospital, London, UK, were studied. The ethics committee of the Royal Brompton & Harefield & NHLI approved the study and all patients gave written informed consent for participating in the study. A diagnosis of idiopathic bronchiectasis was made where there was bilateral, predominately lower lobe bronchiectasis on CT, chronic rhinosinusitis and all known underlying causes had been excluded.

Table 1: Toll-like receptor (TLR)2 and TLR4 restriction fragment length polymorphism analysis

<table>
<thead>
<tr>
<th>Gene polymorphism</th>
<th>Allele</th>
<th>Controls</th>
<th>Idiopathic bronchiectasis</th>
<th>Odds ratio (95% CI) p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLR2 Arg753Gln</td>
<td>G allele</td>
<td>169 (98.2)</td>
<td>162 (95.3)</td>
<td>0.9 (0.7 to 1.1)</td>
</tr>
<tr>
<td>TLR4 Asp299Gly</td>
<td>A allele</td>
<td>3 (1.8)</td>
<td>8 (4.3)</td>
<td>2.5 (0.65 to 9.5)</td>
</tr>
<tr>
<td>TLR4 Thr399Ile</td>
<td>C allele</td>
<td>163 (95.9)</td>
<td>177 (94.1)</td>
<td>1.05 (0.8 to 1.2)</td>
</tr>
<tr>
<td>TLR4 Thr399Ile</td>
<td>T allele</td>
<td>7 (4.1)</td>
<td>11 (5.9)</td>
<td>1.05 (0.8 to 1.2)</td>
</tr>
</tbody>
</table>

C Reynolds
Lung Immunology Group, National Heart & Lung Institute, Imperial College, London, UK

L Ozerovitch, R Wilson
Department of Respiratory Medicine, Royal Brompton and Harefield NHS Trust, London, UK

D Allmán
Human Disease Immunogenetics Group, Department of Infectious Diseases and immunity, Imperial College, London, UK

R Bayton
Lung Immunology Group, National Heart & Lung Institute, Imperial College, London, UK

Correspondence to: Dr R Bayton, Lung Immunology Group, National Heart & Lung Institute, Sir Alexander Fleming Building, South Kensington Campus, Faculty of Medicine, Imperial College, London SW7 2AZ, UK; r.bayton@imperial.ac.uk

Funding: This work was supported by grants from the Royal Brompton & Harefield NHS Trust Clinical Research Committee, the Wellcome Foundation, and the Medical Research Council, UK.

Competing interests: None declared.

References

www.thraxjnl.com
Toll-like receptors 2 and 4 and innate immunity in neutrophilic asthma and idiopathic bronchiectasis
C Reynolds, L Ozerovitch, R Wilsen, D Altmann and R Boyton

Thorax 2007 62: 279

Updated information and services can be found at:
http://thorax.bmj.com/content/62/3/279

These include:

References
This article cites 7 articles, 1 of which you can access for free at:
http://thorax.bmj.com/content/62/3/279#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/