Social economical status, behaviors and environment as the risk factors of tuberculosis in Chengdu, Southwest China

DONG Biron, GE Ning, LIU Guanjian. INCLEN the Regional Resource and Training Center, First Affiliated Hospital, West China University of Medical Sciences, Chengdu 610041, China

Objective To study the risk factors of pulmonary tuberculosis in Chengdu, Southwest China. Methods A population-based case-control study was used which included 174 cases selected from 12 communities in Chengdu and 174 controls selected from registered population with normal chest radiograph. Cases were active TB patients which were matched for age, sex with controls then interviewed by trained interviewers using a standardized questionnaire. Results Social economic status measured by education, occupation and income did not show obvious influence to TB; it found that the active smoking, passive smoking, type of cigarettes and alcohol consumption had no significant effects on TB during logistic regression analysis. The study showed that a person who was smoking and also alcohol intake had a higher risk to get TB (OR = 6.12, 95% CI = 1.15-32.49). Significant association was showed in the Dose-Response Analysis (OR = 1.37, 95% CI = 1.30-2.50). Crowded living space (OR = 1.14, 95% CI = 1.05-1.25), degree of darkness (OR = 2.18, 95% CI = 1.11-4.27) and moisture (OR = 4.06, 95% CI = 2.25-7.33), poor sanitary (OR = 3.03, 95% CI = 1.22-7.44), airpollution of working environment, which were filled with dusts (OR = 2.35, 95% CI = 1.18-4.70) and chemical fumes (OR = 5.15, 95% CI = 1.44-18.40) were strongly associated with pulmonary tuberculosis. BMI also had strong relationship with TB (OR = 4.72, 95% CI = 2.68-8.33). Conclusion Poor environment and exposure to dust and chemical fume under working condition, low BMI, smoking combining alcohol consumption were the risk factors of adult pulmonary tuberculosis in Chengdu, China.

Key words Pulmonary tuberculosis; Risk factor; Case-control study

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<table>
<thead>
<tr>
<th>条件</th>
<th>$A$</th>
<th>OR</th>
<th>$P$</th>
<th>95% CI</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>$E &lt; 0$</td>
<td>2.23</td>
<td>0.01</td>
<td>1.38 ~ 3.53</td>
</tr>
<tr>
<td>2.</td>
<td>$E &lt; 0$</td>
<td>2.23</td>
<td>0.01</td>
<td>1.38 ~ 3.53</td>
</tr>
</tbody>
</table>

3. $Q < 0$ | 1/6 | $C \leq 3$ | 1/6 | $D \leq 3$ | 1/6 | $E \leq 3$ | 1/6 | $F \leq 3$ | 1/6 | $G \leq 3$ | 1/6 | $H \leq 3$ | 1/6 | $I \leq 3$ | 1/6 | $J \leq 3$ | 1/6 | $K \leq 3$ | 1/6 | $L \leq 3$ | 1/6 | $M \leq 3$ | 1/6 | $N \leq 3$ | 1/6 | $O \leq 3$ | 1/6 | $P \leq 3$ | 1/6 | $Q \leq 3$ | 1/6 | $R \leq 3$ | 1/6 | $S \leq 3$ | 1/6 | $T \leq 3$ | 1/6 | $U \leq 3$ | 1/6 | $V \leq 3$ | 1/6 | $W \leq 3$ | 1/6 | $X \leq 3$ | 1/6 | $Y \leq 3$ | 1/6 | $Z \leq 3$ | 1/6 | 

$E$ is a risk factor.