Characterization of adverse effects and it’s associations in the patient medicated with anti-tub

Abstract

Background: Adverse effects from long-term therapeutic intervention in tuberculosis is obvious; however, were taken nonchalantly due to the only therapeutic alternative.

Objective: The objective of this study was to characterize the adverse effects and it’s associations in the patient medicated with anti-tubercular drugs.

Methods: A longitudinal prospective study was conducted among the patient medicated with anti-tubercular drugs. As per the guideline of Nepal’s National tuberculosis control programme (NTP), Nepal, the treatment category was selected, fixed-dose-regimen was calculated, and treatment outcome was affirmed. Patients’ demographics and other clinical details were extracted from the repository files. Upon a consecutive follow-up, observed adverse effects were noted and multivariate logistic analysis against independent factors was done for elucidating any association.

Result: Of 177 cases enrolled, 138(77.9%) reported at least two adverse effects. In our multivariate logistic analysis: female, abnormal body mass index (BMI) i.e. underweight and overweight cases, patients’ behaviours i.e. smoking/drinking or both, clinical diagnosed cases and intensive treatment phase were independently associated with adverse side effects. Loss of appetite (85.4%) was the commonest while dermatologic manifestations (1.2%) and severe weight-loss (1.2%) were the least observed side-effects among the patient medicated with anti-tubercular drugs. Absolute drug-induced-toxicity was observed in treatment failure or MDR (multi-drug-resistant) subjects.

Conclusion: Adverse effects from anti-tubercular therapy are associated with patients’ demographics variables. Symptomatic treatment, regular follow-up after implicated therapy, and therapeutic-discontinuation may be required for successful outcomes.

Priyatam Khadka
Tribhuvan University Teaching Hospital, Nepal

Biography

Priyatam khadka is a young, ebullient laboratory scientist; passionate on clinical microbiology, cell biology and cancer cell research; looking for a PhD. opportunity in the relevant topics of tropical and infectious disease, cancer cell and immune-therapy. Academically, he completed his Postgraduate in Medical Microbiology with a sound academic background. Currently, has been working as Medical Laboratory Professional in Tribhuvan University Teaching Hospital, Institute of Medicine, and Nepal for last 6 years and extra 3 yrs on other Health research institutes.
<table>
<thead>
<tr>
<th>Patient's Demographics</th>
<th>Adverse effect</th>
<th>Total (%)</th>
<th>Odds ratio</th>
<th>95%CI</th>
<th>P value</th>
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</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Yes(n%)</td>
<td>No(n%)</td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>71(71.7)</td>
<td>28(28.3)</td>
<td>99(55.9)</td>
<td>0.3</td>
<td>0.12-0.88</td>
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<tr>
<td>Female</td>
<td>67(85.9)</td>
<td>11(14.1)</td>
<td>78(44.1)</td>
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<tr>
<td>Age group</td>
<td></td>
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<tr>
<td>&lt;20 years</td>
<td>28(73.7)</td>
<td>10(26.3)</td>
<td>38(21.5)</td>
<td>0.8</td>
<td>0.25-2.7</td>
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<tr>
<td>20-39 years</td>
<td>72(80.9)</td>
<td>17(19.1)</td>
<td>89(50.3)</td>
<td>1.1</td>
<td>0.38-3.01</td>
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<td>&gt;40 years</td>
<td>38(76.0)</td>
<td>12(24)</td>
<td>50(28.2)</td>
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<tr>
<td>Mean(SD): 33.48(15.80)</td>
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<td>BMI(Kg/m²)</td>
<td></td>
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<tr>
<td>Under weight</td>
<td>87(87.9)</td>
<td>12(12.1)</td>
<td>99(55.9)</td>
<td>1.8</td>
<td>0.72-4.47</td>
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<tr>
<td>Normal</td>
<td>7(30.4)</td>
<td>16(69.6)</td>
<td>23(13)</td>
<td>0.1</td>
<td>0.03-0.34</td>
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<td>Overweight</td>
<td>44(80)</td>
<td>11(20)</td>
<td>55(31.1)</td>
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<td>Patient's behaviour</td>
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<tr>
<td>None</td>
<td>115(74.2)</td>
<td>40(25.8)</td>
<td>155(87.5)</td>
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<td>0.01-0.95</td>
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<tr>
<td>Smoker/alcholics/both</td>
<td>23(95.8)</td>
<td>1(4.2)</td>
<td>24(12.5)</td>
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<td>Underlying diseases</td>
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<tr>
<td>HIV</td>
<td>4(66.7)</td>
<td>2(33.3)</td>
<td>6(3.4)</td>
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<td>0.09-3.12</td>
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<tr>
<td>Diabetes</td>
<td>6(85.7)</td>
<td>1(14.3)</td>
<td>7(4.0)</td>
<td>1.6</td>
<td>0.19-14.13</td>
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<tr>
<td>Cancer</td>
<td>1(50)</td>
<td>1(50)</td>
<td>2(1.1)</td>
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<td>0.017-4.49</td>
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<td>CKD</td>
<td>3(75)</td>
<td>1(25)</td>
<td>4(2.3)</td>
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<td>Unknown</td>
<td>124(78.5)</td>
<td>34(21.5)</td>
<td>158(89.3)</td>
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<td>Type of diagnosis</td>
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<tr>
<td>Bacteriological confirmed cases</td>
<td>56(70.0)</td>
<td>24(30)</td>
<td>80(45.2)</td>
<td>0.4</td>
<td>0.20-0.89</td>
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<td>Clinical diagnosed cases</td>
<td>82(84.5)</td>
<td>15(15.5)</td>
<td>97(54.8)</td>
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<td>Type of TB</td>
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<td>PTB</td>
<td>59(72.8)</td>
<td>22(27.2)</td>
<td>81(45.8)</td>
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<td>0.28-1.18</td>
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<td>EPTB</td>
<td>79(82.3)</td>
<td>17(17.7)</td>
<td>96(54.2)</td>
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<td>Treatment category</td>
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<tr>
<td>CAT(I)</td>
<td>121(77.6)</td>
<td>35(22.4)</td>
<td>156(88.1)</td>
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<td>0.25-2.5</td>
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<td>CAT(II)</td>
<td>17(81.0)</td>
<td>4(19)</td>
<td>21(11.9)</td>
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<td>Treatment phase</td>
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<td>Intensive phase</td>
<td>133</td>
<td>44</td>
<td>177(100)</td>
<td>103.9</td>
<td>40.1-269.4</td>
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<td>Contuination phase</td>
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<td>172</td>
<td>177(100)</td>
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