RISK OF HOSPITALIZATION FOR PNEUMONIA ASSOCIATED WITH THE USE OF ATYPICAL VERSUS TYPICAL ANTAGONISTS IN A NATIONAL SAMPLE OF MEDICARE BENEFICIARIES

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BACKGROUND

Atypical Antipsychotics have been associated with an increased risk of conditions such as community acquired pneumonia, hip fracture, various thromboembolism and an increased risk of short term mortality.1-3

The long term safety of these medications remains in question and the Institute of Medicine has recommended the comparison of atypical antipsychotic therapy and conventional pharmacologic treatment as one of its hundred initial priority topics in comparative effectiveness research.

A slew of observational studies have pointed towards an increased risk of community acquired pneumonia in patients receiving atypical antipsychotics.4-5

Recently, a Dutch study documented a 3-fold increase in the risk of pneumonia among patients taking atypical antipsychotics, 6

In another study of the specific cause of death of elderly patients prescribed antipsychotics in Norfolk, Pennsylvania, pneumonia accounted for 1.7% of the cases in the atypical antipsychotic group and 2.4% of the cases in the conventional group.7

OBJECTIVES

The purpose of this study was to evaluate the risk of hospitalization for pneumonia associated with typical and atypical antipsychotic use in an elderly Medicare population.

METHODS

This retrospective cohort study used two years (2006-2007) of 5% national sample of Medicare claims data.

Medicare beneficiaries aged 65 and over, those in Part A, B, and D enrollment in 2006-2007 and who initiated atypical or typical antipsychotic drug therapy during July 1st 2006-30th 2007 were included from Part D claims.

Part D prescription records were linked to the Multum Drug Database to identify users of conventional and atypical antipsychotic drugs.

Beneficiaries with a prescription of any antipsychotic on or before June 30th 2006 were excluded.

Users of combinations of atypical and typical antipsychotics and users who switched from one type of antipsychotic to another were excluded.

RESULTS

Table 1. Baseline Characteristics of Study Cohort

<table>
<thead>
<tr>
<th>Type of Antipsychotic</th>
<th>Total Users</th>
<th>Antipsychotic Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atypical</td>
<td>637</td>
<td>474</td>
</tr>
<tr>
<td>Typical</td>
<td>13154</td>
<td>988</td>
</tr>
<tr>
<td>Total</td>
<td>13791</td>
<td>1062</td>
</tr>
</tbody>
</table>

Atypical Antipsychotics were initiated by patients in the atypical antipsychotic group. Men were included and excluded from the matched groups. The age range was 65-100 years old. The average age of the total sample was 82.9 years old (SD 6.89). The average age of the atypical antipsychotic users was 83.0 years old (SD 6.63) and the average age of the typical antipsychotic users was 82.8 years old (SD 7.20).

The proportion of hospitalizations was similar in the atypical (7.5%) and the typical antipsychotic (8.0%) groups.

Atypical antipsychotic use was initiated for conditions such as schizophrenia, bipolar disorder, depression, anxiety, and other conditions.

Atypical antipsychotic use in the atypical antipsychotic group was 1.8% lower than in the typical antipsychotic group.

Atypical antipsychotic use significantly decreased the risk of hospitalization for pneumonia by 12.3%.

Table 2. Odds Ratio for Hospitalization for Pneumonia

<table>
<thead>
<tr>
<th>Propensity Score Matching</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atypical Antipsychotic</td>
<td>1.042</td>
<td>0.843-1.288</td>
<td>0.035</td>
</tr>
<tr>
<td>Typical Antipsychotic</td>
<td>0.976</td>
<td>0.821-1.150</td>
<td>0.776</td>
</tr>
</tbody>
</table>

Table 2 shows the baseline demographic and clinical characteristics of the study cohort. After matching, both groups were similar on the baseline characteristics.

CONCLUSION

The risk of hospitalization for pneumonia was similar for new users of typical and atypical antipsychotic drugs. While this indicates that there is no added safety concern for users of atypical antipsychotics, it also suggests there is no added advantage of atypical use, especially in patients at high risk for pneumonia.

REFERENCES


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