Relative Efficacy and Tolerability of Vortioxetine Compared with Selected Antidepressants in Patients with Major Depressive Disorder with an Inadequate Response to Prior Therapy

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AIM

- Limited evidence exists to differentiate the clinical efficacy of different treatment approaches for patients with MDD with inadequate response to prior SSRIs or SNRIs. Results from few systematic reviews and therapeutic guidelines provide recommendations for these patients.
- Indirect comparisons between different agents have been made to assess their clinical profile.
- Vortioxetine is an antidepressant with a multimodal mechanism of action (reduction in depression rating scores by ≥50%) to the patient's characteristics in the REVIVE and Kasper studies.
- Baseline HAM-D 23.3* 26.5±3.0 18.9±7 .3
- Study length
- Study treatment
- Remission rate: withdrawal rate due to adverse events (AEs).
- Measured endpoints included Montgomery-Åsberg Depression Rating scale (MADRS) and Hamilton Depression rating (HAM-D) scale or ≤10 on the Montgomery–Åsberg Depression Rating scale (MADRS)

RESULTS

- Baseline Characteristics: The patients' characteristics in the REVIVE and Kasper studies were comparable in terms of age, gender distribution, and severity at baseline (Table 1). A marginally younger population with severe baseline depression and a higher proportion of men was enrolled in the REVIVE RCT compared with the Kasper 2013 and STAR*D studies.
- Remission rates: Vortioxetine was significantly more effective than sertraline (risk difference 12.1%, [95% CI: 3.1; 21.1]), venlafaxine XR (risk difference 12.3%, [95% CI: 0.8; 23.1]), and bupropion SR (risk difference 16.3%, [95% CI: 6.4; 30.2]) (Figure 3).
- Withdrawals Due to AEs: Vortioxetine compared with agomelatine (risk difference 3.6%, [95% CI: -1.1; 8.3])
- Bupropion SR Risk Difference = -10.7 [95% CI: -27.9; 6.6]
- Sertraline Risk Difference = -14.4 [95% CI: -29.8; 1.1]
- Venlafaxine XR Risk Difference = -7.2 [95% CI: -24.3; 9.9]

CONCLUSIONS

- The recent REVIVE RCT compared efficacy of vortioxetine with sertraline, venlafaxine XR, and bupropion SR, treatments which are widely used in clinical practice.3–9
- The aim of the current study was to make indirect treatment comparisons to compare the efficacy and tolerability of vortioxetine with other treatments commonly used in clinical practice for patients who switch antidepressants.
- The network of evidence presented here provides the opportunity to perform additional studies such as cost-effectiveness evaluations, with the possibility to assess the impact of the most uncertain parameters in these routes through multiple sensitivity analyses.

REFERENCES


Table 1: Baseline Characteristics of the Three Studies Used for Indirect Comparisons

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Study</th>
<th>HAM-D</th>
<th>MADRS</th>
<th>SR</th>
<th>Risk Difference</th>
<th>CI95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sertraline</td>
<td>REVIVE</td>
<td>26.5±3.0</td>
<td>NA</td>
<td>NA</td>
<td>-14.4</td>
<td>[-29.8; 1.1]</td>
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<tr>
<td>Vortioxetine</td>
<td>REVIVE</td>
<td>18.9±7.3</td>
<td>NA</td>
<td>NA</td>
<td>12.1</td>
<td>[3.1; 21.1]</td>
</tr>
<tr>
<td>Venlafaxine XR</td>
<td>REVIVE</td>
<td>23.8±4.2</td>
<td>NA</td>
<td>NA</td>
<td>12.3</td>
<td>[0.8; 23.1]</td>
</tr>
</tbody>
</table>

Figure 2. Difference in Remission (upper panel) and Withdrawal to AEs (lower panel) Rates Between Treatments and Vortioxetine

Figure 1. Network Diagram