An Update on the Treatment of Bipolar Depression

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3 Acts...

• Brain
• Bipolar disorder
• Treatments
Act 1: The Brain
“...from the brain, and from the brain only, arise our pleasures, joy, laughter and jests, as well as our sorrows, pains, grieves, and tears.”

Hippocrates Circa 400 BCE
Act II: Bipolar Disorder
Bipolar Disorder Fast Facts

• Among top 10 causes of disability worldwide
• 50% with onset before the age of 25
• Costs $151 billion per year
• Prevalence about 4.5%
Bipolar Disorder Fast Facts

• Types
  • **Type I** with manic episodes
  • **Type II** with hypomanic episodes

• 90% have other problems
  • *Substance use disorders*
  • *Anxiety disorders*

• 1.5 to 2.1 times more likely to have chronic physical conditions
Bipolar and age of onset of comorbid conditions

Loftus et al. Journal of Affective Disorders 267 (2020) 258–263
Response, Remission, Recovery, Relapse, Recurrence:
Phases of Treatment of Bipolar Disorder

Act III: Treatments

Data are from the National Ambulatory Medical Care Survey, 1997–2016. AD = antidepressant; AP = antipsychotic; MS = lithium and antiepileptic mood stabilizers.
FDA Approved

- Olanzapine/Fluoxetine Combination (OFC)
  - Zyprexa/Prozac
- Quetiapine – Seroquel
- Lurasidone – Latuda
- Cariprazine – Vraylar
## FDA Approved Bipolar Depression Treatments

<table>
<thead>
<tr>
<th>Drug</th>
<th>Response</th>
<th>Weight Gain</th>
<th>Sedation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olanzapine/Fluoxetine</td>
<td>56%</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>59%</td>
<td>8%</td>
<td>56%</td>
</tr>
<tr>
<td>Lurasidone</td>
<td>52%</td>
<td>2%</td>
<td>10%</td>
</tr>
<tr>
<td>Cariprazine</td>
<td>46%</td>
<td>3%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Citrome. Journal of Clinical Psychopharmacology • Volume 40, Number 4, July/August 2020
Not FDA Approved

• Antidepressants with or without antipsychotics
• Lamotrigine
• Electroconvulsive therapy
• Repetitive transcranial magnetic stimulation (rTMS)
Psychotherapy

- Cognitive behavioral therapy (CBT)
- Family focused therapy
- Mindfulness based cognitive therapy (MBCT)
- Unified protocol for emotional regulation
- Dialectical behavioral therapy (DBT)
- Lifestyle interventions
Potential new treatments

- Ketamine
- Pramipexole
- Pioglitazone
- Bezafibrate
- Minocycline
- N-acetylcysteine
- Nicotinamide riboside
- Candisartan
Hope

• Better understanding of BD with larger genetic studies
• Neurons and brain organoids made from skin biopsies
• Big data from electronic medical records
• Bipolar Global Cohort Collaborative
• Philanthropic support