# Case Study: Bipolar Disorder with Psychosis
## Lithium - Haloperidol Neurotoxicity and Catatonia

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**INTRODUCTION**

**Bipolar Disorder (BD):** prevalence: 3.9% (NIH)

Euthymia = remission of symptoms

Episodes
- Mania
- Depression
- Mixed
  - Any episode can be mild, moderate, severe, +/- \( \Psi \)

**Catatonia:** in any severe episode

Treatments:
- Mood stabilizers: Lithium-Li, Valproate-VPA
- Antipsychotics: olanzapine-OLZ, haloperidol-HAL
- Antidepressants
- Benzodiazepines: clonazepam-CLZ
- ECT
- Combination of above treatments

## BD – EPISODIC ILLNESS

**Mania**
- Elevated Mood
- Euphoria
- Grandiosity, Euphoria

**Dysthymia or Dysphoria**
- Depressed Mood
- Stereotypy of movement
- Auditory hallucinations

**Euthymia**
- Fluctuating sensorium
- Disorientation
- Suicidality

## DISCUSSION

**Delirium 2nd to Li and HAL induced neurotoxicity**
- Mechanism of toxicity unknown
- Rare & can be under-Dx
- Question Dx if no response to Tx
- DC offending agent to improve or resolve neurotoxicity & delirium

**Catatonia**
- Rare & can be under-Dx
- Catatonia, stereotypal movements & thoughts
- Antipsychotics may worsen catatonia
- Benzodiazepines & ECT are Tx of choice

## TREATMENT COURSE: 33 y/o male treated for BD mania with psychosis

<table>
<thead>
<tr>
<th>Treatment Day:</th>
<th>Hospitalization 1 1-7</th>
<th>Outpatient Treatment 8-38</th>
<th>Hospitalization 2 39 – 45</th>
<th>Hospitalization 2 46 - 63</th>
<th>Partial Day Hospital 64 - 74</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical exam</td>
<td>No abnormality</td>
<td>Cog-wheeling, tremor</td>
<td>Coarse tremors, gait ataxia, tachycardia</td>
<td>Stereotypy of movement, pacing, tachycardia, insomnia</td>
<td>Agitation &amp; tremors resolved</td>
</tr>
<tr>
<td>MSE</td>
<td>Grandiosity, euphoria, insomnia, hyper-religiosity auditory hallucinations</td>
<td>Disorientation not recognizing family auditory hallucinations</td>
<td>Fluctuating sensorium disorientation, suicidality auditory hallucinations</td>
<td>Stereotypy of thought, echolalia, BD mania</td>
<td>Mild euphoria hyper-religiosity</td>
</tr>
<tr>
<td>Laboratory</td>
<td>Li 0.43 mEq/L with THC+</td>
<td>Li 0.46 mEq/L</td>
<td>Li 0.98 mEq/L with THC+</td>
<td>N/A</td>
<td>VPA 90 ng/ml</td>
</tr>
<tr>
<td>SLUMS</td>
<td>0 / 30 ⇒ 18 / 30 ⇒ 27 / 30</td>
<td></td>
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</tr>
<tr>
<td>Diagnosis</td>
<td>BD mania severe with ( \Psi )</td>
<td>BD mania severe with ( \Psi ) vs. delirium onset</td>
<td>Delirium 2nd Li and HAL induced toxicity</td>
<td>BD mania severe with catatonia</td>
<td>BD mania - mild</td>
</tr>
<tr>
<td>Treatment</td>
<td>Li, OLZ, CLZ</td>
<td>OLZ discontinued Haloperidol start &amp; D/C'd Li &amp; CLZ continued</td>
<td>Li discontinued OLZ, CLZ continued</td>
<td>Titrate OLZ and CLZ initiate ECT</td>
<td>VPA titration, OLZ decrease</td>
</tr>
<tr>
<td>Outcome</td>
<td>Resolution of psychosis BD Mania moderate</td>
<td>Psychotic, cognitive decline, fluctuation of sensorium</td>
<td>Delirium resolved</td>
<td>Catatonia &amp; psychosis resolved, BD mania improved</td>
<td>Discharged home</td>
</tr>
</tbody>
</table>