

# Electroconvulsive Therapy: A Safer Alternative to Treating Women with Major Depressive Disorder During Pregnancy

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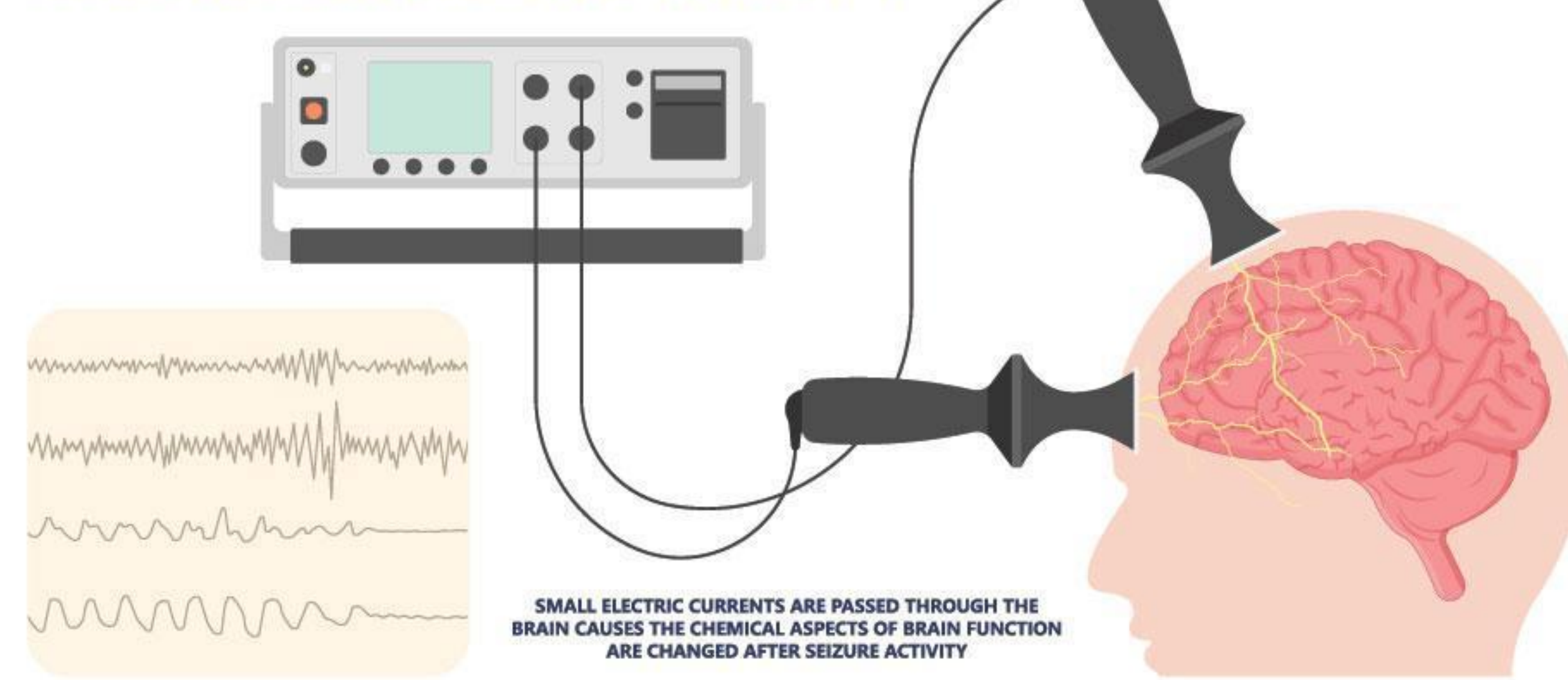
## Background

The common treatment for severe depression in pregnant women is selective serotonin reuptake inhibitors (SSRIs), which are assumed to be effective and harmless to the fetus; however those benefits have not been established.<sup>1</sup> Studies have shown that SSRI use during pregnancy actually pose higher complications for the mother postpartum and the fetus during developmental stages.<sup>1-3</sup> SSRIs can affect brain development in the fetus due to altered levels of serotonin during developmental sensitive periods.<sup>2</sup> A more effective and safer intervention to overcoming this issue is shown with electroconvulsive therapy (ECT).<sup>4</sup>

## PICOT Question

In pregnant women with major depressive disorder (P), what is the effect of electroconvulsive therapy (ECT) (I) on reducing mother's risk for suicide and preventing fetal birth defects (O) compared to antidepressant drug therapy (C)?

### ECT ELECTROCONVULSIVE THERAPY



ECT (electroconvulsive therapy)



## Literature Review

### Database:

- CINAHL
- PubMed

### Key Terms:

- Electroconvulsive Therapy
- Pregnant Women
- Major Depressive Disorder
- Antidepressants

### Article Selection Criteria:

1. Published between 2018 and 2022
2. Aligns with research question
3. Population: Pregnant Women with Major Depression
4. Peer-reviewed: Scholarly Journals

## Synthesis of Findings

- The importance of treating mothers with depression is evidenced in findings that suggest maternal depression may directly affect fetal growth and development and may also impose child behavioral and mood disorders.<sup>5-7</sup>
- The use of antidepressants during pregnancy increases the prevalence of postpartum hemorrhage by 2.1%.<sup>2,8</sup>
- Newborns who were exposed to SSRI antidepressants as fetuses have been born with poor neonatal adaptation syndrome.<sup>9,10</sup>
- Electroconvulsive therapy has shown no association with neurocognitive disturbances, nor has it resulted in morphological or behavioral abnormalities in the child.<sup>11</sup>
- According to studies, ECT offers rapid relief to the mother's depression, lowering the risk of self-harm sooner than pharmacotherapy, as well as reducing fetal complications such as neurocognitive deficits, neural tube birth defects, and anatomical and physiological malformations.<sup>11,12</sup>

## Decision to Change

- We would like to recommend replacing pharmacotherapy with electroconvulsive therapy (ECT) as a safer, faster, and more effective treatment for pregnant women with major depression.
- By using ECT, patients may avoid the risk of suicidal tendencies caused by pharmacotherapy.
- ECT has shown no association with birth defects in newborns whereas the use of selective serotonin reuptake inhibitors during pregnancy has been linked to poor neonatal adaptation syndrome.

## Evaluation

By the end of the first month implementation period, electroconvulsive therapy will decrease a mother's major depression by 25%.

### Tools:

- PHQ-9: The patient health questionnaire (PHQ) is based on 9 criteria of which the DSM-IV outlines for depressive disorder.<sup>13</sup>
- Apgar Score is used to evaluate the condition of an infant at birth.<sup>14</sup>
- Neonatal abstinence score is used to evaluate an infant's addiction or withdrawal from exposure to drugs in the womb.<sup>15</sup>

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