QUETIAPINE’S EFFECTS ON EMOTIONAL PROCESSING AND SLEEP OPPOSE ABNORMALITIES SEEN IN BIPOLAR PHENOTYPE | P.2.D.031

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Background

- Psychiatric illnesses, including bipolar disorder, are characterised by disrupted emotion processing1 and circadian rhythms2.
- Effective treatments may exert their effects through mediation of either of these factors.
- Quetiapine is an atypical antipsychotic that can stabilise mood from any index episode of bipolar disorder3-4.

Overview and Aim

- We assessed emotional processing and circadian rhythms in medication-naive bipolar phenotype individuals compared to controls (Study 1) and in healthy volunteers following quetiapine vs. placebo treatment (Study 2).
- Our aim was to contrast the abnormalities present in the bipolar phenotype with the effects of quetiapine treatment.

Methods

Participants

- Study 1: 32 bipolar phenotype individuals (with scores ≥7 on the Mood Disorder Questionnaire5) and 30 matched controls
- Study 2: 20 healthy volunteers treated with 150mg quetiapine XL (titrated over 3 nights) for 7 nights and 20 matched controls treated with placebo (with sham titration)

Emotional processing

- Facial expression recognition task: Morphed emotional faces (Ekman & Friesen6) were presented for 500ms
- Emotional word categorisation and recall/recognition memory
- Emotion-potentiated acoustic startle
- Attentional vigilance word dot-probe

Sleep and circadian rhythms

- Participants wore Actiwatch-L on non-dominant wrist
- Study 1: 2-week assessment
- Study 2: Assessment for 1 week on drug vs. 1 week baseline

Results

Conclusions

- The effects of seven-day quetiapine administration opposed many of the abnormalities recorded in individuals with the bipolar phenotype.
- The abnormalities seen in the bipolar phenotype for which there were opposing effects following quetiapine treatment were:
  - Greater target sensitivity for surprised faces
  - Enhanced processing of positive vs. negative emotional words during a memory task
  - Reduced sleep duration
- The present findings suggest a number of mechanisms through which quetiapine may stabilise mood and circadian rhythms and through which its clinical effects may be mediated.

References

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