
Peer reviewed version
License (if available): CC BY-NC-ND
Link to published version (if available): 10.1016/j.eurpsy.2017.02.384

Link to publication record in Explore Bristol Research
PDF-document

This is the author accepted manuscript (AAM). The final published version (version of record) is available online via Elsevier at https://www.sciencedirect.com/science/article/pii/S092493381732655X. Please refer to any applicable terms of use of the publisher.

University of Bristol - Explore Bristol Research
General rights
This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available: http://www.bristol.ac.uk/red/research-policy/pure/user-guides/ebr-terms/
Relationship between taste thresholds and antidepressant response: Preliminary findings

- Presenting author's contact details
  - Shrikant Srivastava
- Email address
  - shrikantsrivastava@kgmcindia.edu
- Full postal address
  - Associate Professor Geriatric Psychopharmacology
  - Dept of Geriatric Mental Health
  - King George's Medical University
  - Lucknow.
- Daytime and evening phone number
  - +91 9621373167
- Author and co-authors' details
  - Shrikant Srivastava\(^1\)
  - Vivek Agarwal\(^1\)
  - Ambrish Kumar\(^1\)
  - Prateek Chaubey\(^1\)
  - Lucy Donaldson\(^2\)
  - John Potokar\(^3\)

- Affiliation details: department, institution / hospital, city, state (if relevant), country
  \(^1\)Department of Geriatric Mental Health, K G Medical University, Lucknow, India
  \(^2\)Associate Professor, Faculty of Medicine & Health Sciences, University of Nottingham, Nottingham, UK
  \(^3\)Department of Social & Community Medicine, University of Bristol, Bristol, UK

- Abstract title

  Relationship between taste thresholds and antidepressant response: Preliminary findings
Abstract text

Introduction:

In healthy volunteers, light acting through serotonin pathways, decreases the threshold for sweet, but not salt taste; similar to SSRI paroxetine. In depressive disorders, there is deficiency of serotonin throughput, which is remedied by SSRI medications, and results in improvement in symptoms of depression. Thus, we report on taste thresholds before and after SSRI treatment.

Objectives

To study the variation in thresholds for sweet with SSRI treatment in depressed patients in short and long-term.

Aims

To compare the threshold for sweet (test) and salt (control) after 1 and 4 weeks of SSRI escitalopram therapy in depressed patients.

Methods

The project was approved by the institutional ethics committee. Following informed consent, depressed patients were initiated on escitalopram 10 mg/d (increased to 15 or 20 mg, if required after 1 week,). Taste recognition threshold, intensity and pleasantness were measured for sweet and salt. Each tastant was made -1 to -3 (100mM – 1mM). Regional recognition thresholds were determined at the tip of the tongue using a cotton bud well soaked in the tastant.

Results

Three males and 4 females of mean ages 39.1 years completed the study. There was significant shift to the left for sweet thresholds between days 0 and 7, and 7 and 28 [F(Dfn, Dfd = 9,242 (4,162) p<.0001]. A similar shift to the left was seen for salt but day 7 only [F(Dfn, Dfd = 6.213 (4, 162)] (Fig 1).

Conclusion

The increase in serotonin throughput as envisaged through SSRI treatment was paralleled by decrease in sweet thresholds.