gutflix
GI learning, personalised

Summary

THE INVOLVEMENT OF TRYPTOPHAN METABOLISM, ESPECIALLY TRYPTOPHOL, IN INTESTINAL SENSITIVITY IN A MODEL OF GASTROINTESTINAL INFECTION WITH ENTEROBACTERIACEAE

Frederic Antonio Carvalho

UEG Week Berlin 2025 | Poster

Colorectal

October 5, 2025

Oral tryptophol supplementation reverses colonic hypersensitivity in a mouse model of post-infectious IBS by reducing sensory neuron activation.

KEY POINTS

- Tryptophol levels were decreased in the colon of C. rodentium infected mice at four weeks post-infection (p=0.036), consistent with prior findings in fecal and cecal samples.
- Oral administration of tryptophol at 600 mg/kg twice daily for 8 days reversed colonic hypersensitivity in infected animals (p=0.037) without sex-dependent differences.
- In vitro calcium imaging showed that tryptophol at 100μM significantly reduced the response intensity of dorsal root ganglion neurons to capsaicin (p=0.018), indicating a neuroinhibitory effect.
- The findings suggest tryptophol as a potential therapeutic candidate for post-infectious IBS, with ongoing work examining its mechanisms of action.
- This study is relevant to researchers investigating tryptophan metabolism in disorders of gut-brain interaction and potential therapeutic targets for visceral pain.

VIEW THIS CONTENT ON GUTFLIX

https://gutflix.eu/search/d/a19019e2-a814-11f0-8ff5-0242ac140006

AI-generated summary

This summary was generated by an AI large language model based on the content transcript. It is for informational purposes only and should not be considered a substitute for clinical judgment. Always rely on your professional expertise and the full clinical context when making clinical decisions.