

PubMed

U.S. National Library of Medicine
National Institutes of Health

BenthamDirect
www.bentham-direct.org

Display Settings: Abstract

Curr Med Chem. 2005;12(17):2021-39.

Taurine analogues; a new class of therapeutics: retrospect and prospects.

Gupta RC, Win T, Bittner S.

SASRD, Nagaland University, Medziphema-797106, India. rameshgupta1954@yahoo.com

Abstract

Taurine was discovered more than two hundred years ago from animal sources. It is distributed in both mammals and non-mammals and its content is high in several tissues. For more than a century-and-a-half, taurine was regarded just as an end product of sulfur metabolism. Recently, taurine has been rediscovered and its beneficial effects in processes like epilepsy, hypertension, congestive heart failure and diabetes have been well-documented. It was patented and found some clinical utility, but being an amino acid, therapeutic use confronts limitations like restricted permeability and more. This necessitates the development of pro-drugs (analogues) mainly derivatives of taurine. A large number of taurine derivatives have been reported in the literature with partial to marked activity. Taurine derivatives like taltrimide, acamprosate and tauromustine, are already in the market as anti-convulsant, anti-alcoholic and anti-cancer agents. Many other analogues are effective in experimental models. The in depth analysis of these analogues and their biological actions can provide certain clues for further consideration. In the present review, attempts have been made to provide synopsis, synthesis and symbiosis of chemical and biological actions, which may provide future guidance and facilitate further research in this area. The successful journey of these analogues to clinical utility is a healthy and happy sign and an index of bright future, and we hope that this review will provide enough input to ignite the minds.

PMID: 16101502 [PubMed - indexed for MEDLINE]

[Publication Types](#), [MeSH Terms](#), [Substances](#)

[LinkOut](#) - more resources