SHORT COMMUNICATION

PROBING THE REVERSAL OF NATURAL COLOR PREFERENCE IN ADULT ZEBRAFISH AFTER TRIMETHYLTIN INDUCED NEURODEGENERATION

ABSTRACT

For turmeric oil obtained from *Curcuma longa* L. and rosemary oil obtained from *Rosmarinus officinalis L.* there an limited reports for their effect against neurodegenerative disorders, besides the limited knowledge on formulation development and their evaluation for CNS disorders have tremendous future prospective. The objective of the study was evaluating the reversal of natural color preference and behavioral analysis associated with curcumin microemulsion (CUR ME) treatments in neurodegeneration induced adult zebrafish. The zebrafish were induced neurodegeneration using trimethyltin chloride followed by treatment. The color preference and behavioral analysis were recorded, analysed and interpreted. The results revealed the improved effect of CUR MEs over standard treatment. It was observed that the time spent in red zone was nearly regained after CUR ME treatment over standard treatment. Furthermore, the decreased path length was successfully improved after CUR ME treatment ($p<0.05$). Overall findings suggested the superior performance of CUR MEs over standard treatment and CUR solution treatment probing the potential of CUR MEs in the treatment of neurodegenerative disorders.