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Effect of Sesamol on neurobiochemical changes in diet induced (DIO) obesity model of Zebra fish (*Danio rerio*)

Abstract: Obesity is a multifactorial disease; an excessive fat accumulation occurs due to imbalance between energy intake and energy expenditure correlated with genetic, metabolic and behavioral components. Nevertheless, it has been directly related to dietary habits and lifestyle changes. Possessing several structural and functional similarities with humans, Zebra fish promises to be a potential model for metabolic disease and obesity models. Zebra fish model of diet-induced obesity (DIO) was found to be highly consistent with the obesity observed in humans. More over this model has low maintenance cost compared to other mammalian models. *Sesamum indicum* (Tila) enjoys the cardinal place among medicinal herbs in India since ancient times. Previous studies showed that Sesamol acts as a metabolic regulator and possesses hepatoprotective, cardio protective, antiatherogenic, chemo preventive, radical scavenging, antiaging, and hypolipidemic effects. Hence in the present study we hypothesized to explore the effect of sesamol on obesity by using diet induced model of obesity in zebra fish. Further this study aims at looking at the biochemical changes in obesity model of zebra fish and the effect of Sesamol on diet induced obesity model

Key words: Obesity , Zebra fish , hypolipidemia, , sesamol