Evaluation of Teratogenicity-Indian Medicine Formulations

Nilavembu Kudineer and Mathulai Manapagu using Zebrafish Model

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ABSTRACT A teratogen is a drug or other substance capable of damaging the DNA and interfering with the development of an embryo and it may lead to birth defects or developmental malformations. The present study is carried out to evaluate the Indian Medicines Nilavembu Kudineer and Mathulai Manapagu. In Siddha system, Nilavembu Kudineer is given to treat Dengue fever whereas Mathulai Manapagu is to improve the hemoglobin content and the management of hormonal imbalance in women. The results exemplified the overall percentage mortality, hatchability, and deformities were observed as low in Mathulai Manapagu than Nilavembu Kudineer. The teratogenic index of Nilavembu Kudineer is higher than 1 (1.33), whereas LC₅₀ and EC₅₀ values were observed as 80 µg/ml and 60 µg/ml respectively. Hence, Nilavembu Kudineer is considered as teratogenic when compared to Mathulai Manapagu.