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**A literature review on the antimutagenic effect of *Thriphala* wsr to *Rasayana* therapy**

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Plants have been a prime source of highly effective medicinal preparations for the treatment of many forms of cancer. Mutations are capable of altering the genome, having an immense potency to create defects in the human body. They are reflected as hereditary disorders or cancer. At present, cancer has become a leading cause of death worldwide accounting for nearly 10 million deaths according to World Health Organization Statistics 2020. Mutagens play a key role in cancer whereas antimutagens counteract with the action of mutagens thereby curing cancer. Bestowing the normal functions and equilibrium of anatomical structure of the *Dosha Dhatu* (cells and tissues) is one of the major qualities of *Rasayana* (rejuvenative) therapy, which is one of the eight branches of Ayurveda. *Rasayana* therapy is defined as preventing senility by stabilizing youthfulness, eliminating disease and promoting longevity. *Thriphala* being a composition of *Terminalia chebula*, *Terminalia bellerica* and *Phyllanthus emblica* is a frequently used medicine in *Rasayana* Therapy among its many other therapeutic uses. The main objective of this study was to review the relationship between the anti-mutagenic effects of *Thriphala* with special reference to *Rasayana* Therapy. This study was carried out as a review study and data were collected from published research articles and authentic Ayurveda texts. Among Pharmacodynamic properties described in authentic texts, *Kashaya Rasa*, *Laghu*, *Ruksha Guna*, *Ushna Veerya* and *Madhura Vipaka* were the most prominent. According to reviewed data of previously published research articles, *Thriphala* contains bioactive compounds such as flavonoids, saponins, anthraquinones, amino acids, fatty acids and various carbohydrates. Among them tannins, gallic acids, ascorbic acid are the major constituents mentioned to be accountable for immunomodulatory action which is achieved by inhibiting, activation of mutagens, blocking and anti-oxidation action claimed to be as anti-mutagenic. Considering the relationship between *Rasayana* and antimutagenic effect, *Agni* promoting action which is one of the predominant pharmacological attributes of *Thriphala*, is not only confined to *Jatharagni* (Digestive fire) and *Sapthadhathu Agni* (Tissue level metabolism) but also to the *Panchabhutha Agni* (Cellular level metabolism). Hence molecular targeted therapeutics are more efficient in destroying cancer cells and eradicating them at molecular levels. Therefore, the process of cell division takes place at its optimal state without any interruption, where *Panchabutagni* eliminates *Aama* at the cellular level, which can be correlated with mutagens. This process enhances the immunity of cells and tissues by imparting resistance against cancer. Hence, using *Thriphala* on a regular basis is proven to be beneficial in Ayurveda practice. Further pharmaceutical analysis of individual ingredients and compounds *Thripala* and clinical studies will be carried out to evaluate the efficacy of *Thripala* in therapeutic effect of *Rasayana* in cancer therapy to scientifically validate the results.

**Keywords:** Anti mutagenic effect, Cancer, *Thriphala*, *Rasyana* Therapy.