MOLECULAR MECHANISM OF *ERANDA MOOLA* (ROOT OF *RICINUS COMMUNIS* L.) IN THE TREATMENT OF OSTEOARTHRITIS WITH NETWORK PHARMACOLOGY APPROACH

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ABSTRACT

The development of single-drug therapy in Ayurveda has been ongoing. For osteoarthritis, *Eranda* is one such medication. Age, joint injury, obesity, and family history are some of the factors that contribute to osteoarthritis. A new medication that is safer and more effective is required for this illness is required to manage the illness. *Eranda* has proven its effect on Osteoarthritis (OA) in numerous clinical trials, but the exact mechanism of action is still unknown. By identifying the phytochemicals in plant databases, the targets related to the disease were acquired from disease databases. Protein-protein interaction and pathway analysis were performed after the phyto-targets and disease targets were extracted from the UNIPROTKB and Gene card databases. Ellagic acid and quercetin were discovered to be potent inhibitors of the CYP1A1 target after the network was constructed using Cytoscape and molecular docking of the targets, phytochemicals, and standard medication was done. Further, clinical study on the dosage, efficacy and time of administration is needed to check its usage in the management of osteoarthritis.