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Dubai, UAE**Neuroprotective potential of mitochondrial coenzyme-Q10 precursor in combined model of intracerebral and intraventricular hemorrhage using autologous blood-injection in brain**

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**B**rain Hemorrhage is an interruption of blood supply to a part of brain typically by a thrombus or embolus occlusion. It is characterized by oxidative stress, excitotoxicity, neurotransmitter deficits, mitochondrial energy failure and neuronal cell death that lead to behavioral and motor dysfunctions. After cerebral hemorrhage or post hemorrhagic surgeries, most of the patients suffering from impairment in memory, grip strength, posture and cognitive dysfunction. Mitochondrial complexes enzyme dysfunction increases neuroinflammatory cytokines which may be key pathological hallmarks of cerebral hemorrhage. As a part of the mitochondrial respiratory chain, Coenzyme Q10 can effectively remove free radicals and can prevent damage to biological membranes of neurons. Solanesol is long- chain

terpenoid alcohol and is the starting material for many high-value bio-chemicals, including Coenzyme Q9 (CoQ9), Coenzyme Q10 (CoQ10) and vitamin K analogues. Moreover, it prevents the opening of mitochondrial membrane transition pore, thereby counteracting cell death events such as ATP depletion, release of cytochrome c into the cytosol, DNA fragmentation etc. It also exerts an anti-inflammatory effect by influencing the expression of NFkB1 dependent genes thus preventing the neuroinflammation. Therefore, in current investigation, first time we explore the neuroprotective strategies of coenzyme-Q10 precursor Solanesol in combined model of intracerebral and intraventricular hemorrhage using autologous blood-injection in rat brain.

**Biography**

Sidharth Mehan, Ph.D., M.Pharm (Pharmacology) is working as Associate Professor in Department of Pharmacology at ISF College of Pharmacy, Moga, Punjab, India, one of the best well renown and prestigious Pharma education and research institute in India. Dr. Mehan has more than 9 years of academics, research and administrative experience to his credit and simultaneously working as Doping Control Officer on empanelment in Ministry of Youth Affairs & Sports, Govt. of India, Delhi and working Senior Clinical Dietitian & Nutritionist in online medical agencies in India. He has published more than 75 research and review articles in prestigious National and International Journals.

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