Evaluation of antioxidant, immunostimulatory and antifatigue properties of *Dashmularishta* using *in vitro* and *in vivo* assays

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Dashmularishta is an Ayurvedic formulation used widely as a health tonic. Since the mode of action of *Dashmularishta* has not been explored much in depth, we investigated its potential effects on antioxidant, antifatigue and immunostimulatory properties using *in vitro* as well as *in vivo* assays. The antioxidant potential was assessed by free radical scavenging (ABTS based) assay. Antifatigue potential was elucidated by DNA super coiling assay and swim endurance test model. Immunostimulatory effect on Natural Killer (NK) cells activity was evaluated using mouse splenocytes and YAC-1 based assay. *Dashmularishta* exhibited *in vitro* antioxidant and anti-fatigue potential and *in vivo* anti-fatigue properties in Swiss albino mice. Further, it also enhanced the *in vitro* NK cells activity at non-cytotoxic concentrations.

Keywords: Ayurvedic, Antifatigue, Free radical scavenging, Herbal, NK cells, Swim endurance, Dashmularishta, Immunomodulatory