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Medical Pluralism- Practice of Alternative Medicine in Rural Communities of Nepal

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Alternative medicine has been practiced and still widely accepted in Chinese as well as south Asian medical system. Use of both complementary and alternative medicine (CAM) is quite popular in rural Nepal where people are using both alternative as well as allopathic medicine. Several plants, animal and other natural resources are widely used as either therapeutic options or nutritional supplements. Owing to the huge geographical diversity of Nepal, it is rich in flora and many of them have medical importance. There is not systematic study of Nepalese flora in terms of active ingredients and their medicinal properties. Efficacy of Yarsagumba and its bioactive compound cordycepin in Pulmonary Hypertension (PH) was tested by well-designed systematic experimental setting in cell culture as well as murine model.

Entomogenous fungus *Yarsagumba* (*Cordycepssinensis*) and its biochemically active constituents such as cordycepin, which have among others the anti-oxidant, anti-inflammatory and vasodilatory effects could be the therapeutic options for this incurable disease. We investigated the effect of *Yarsagumba* extract and its purified bioactive compound cordycepin on human pulmonary artery smooth muscle cells (hPASMCs) and in murine model of isolated lungs to investigate their still unknown anti-proliferative and vasorelaxant properties in the context of Pulmonary Hypertension (PH). Both *Yarsagumba* extract and cordycepin significantly reduced proliferation of hPASMCs derived from donor and PH subjects. However, only *Yarsagumba* extract, and not cordycepin, showed the vasodilatory outcome, suggesting the existence of other active metabolites present in *Yarsagumba* which may be responsible for this effect. Further research in the field is needed to provide the detailed and mechanistic insights about the exact therapeutic potency of *Yarsagumba* extract and whether it can be used as an option to treat PH patients.

Biography:

Himal Luitel is an academician and researcher, currently serving as Assistant Professor in Center for Biotechnology, Agriculture and Forestry University, Chitwan, Nepal. He is veterinary graduate from Tribhuvan University, Nepal, Masters in Molecular Biology from Interuniversity Program Molecular Biology, Belgium, and PhD, Post-Doctorate from Excellence Cluster Cardio-Pulmonary System, Justus-Liebig University, Germany. He has expertise in in vivo (lab animals) and in vitro testing of pharmacologically active compounds. Currently, he is establishing new lab in Center for Biotechnology, Agriculture and Forestry University, Chitwan, Nepal where he is planning to do research in natural products in laboratory animals and in vitro settings. Currently, he is conducting research on common bacterial diseases of poultry for development of rapid molecular diagnostic tools and identifies candidate genes for vaccine development.