



Dendrobium huoshanense can reduce hydrogen peroxide-induced toxicity in SH-SY5Y cells.

Ka-Chun Suen¹, Ho-Lim Chung¹, Ho-Him Ma¹, Poon-Kiu Ho¹, Pak-Chun Chow¹, Theodore Jeremy Tong¹, Gary Abbass¹, Cheuk-Yui Chung¹, Raymond Chuen-Chung Chang²

¹Po Leung Kuk Laws Foundation College, Tseung Kwan O, Hong Kong, China

²Laboratory of Neurodegenerative Diseases, Department of Anatomy, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Pokfulam, Hong Kong, China

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Introduction

Dendrobium huoshanense, an herb of Orchidaceae family, has long been used as traditional Chinese medicine for the protection of eye, stomach and liver. A recent study has shown that *Dendrobium huoshanense* can help prevent selenium-induced liver injury and fibrosis in rats. Moreover, this herb has been found to scavenge free oxygen radicals and inhibit nitric oxide generation, exerting antioxidative functions.

The objective of the present study is to investigate the neuroprotective effects of *Dendrobium huoshanense* against oxidative stress which has been implicated in many neurological diseases such as ischemia, Alzheimer's disease and Parkinson's disease.

Methodology

Cells: Undifferentiated SH-SY5Y cells

Pre-treatment: Undifferentiated SH-SY5Y cells in DMEM supplemented with 5% FBS were pre-treated with chemically extracted *Dendrobium huoshanense* for 24 hours.

Treatment: After removing *Dendrobium huoshanense* from the cells, they were treated with hydrogen peroxide at 400 μ M in DMEM with 2% FBS for 18 hours.

Cytotoxicity test: Measurement of LDH release

Discussion

Results indicated that pretreatment of *Dendrobium huoshanense* can reduce the release of lactate dehydrogenase from SH-SY5Y cells in hydrogen peroxide-induced toxicity, implicating that *Dendrobium huoshanense* may help in neuroprotection.

Contact information: Dr. K.C. Suen skc@plklfc.edu.hk

Results

