

# 2<sup>nd</sup> International Conference and Exhibition on Traditional & Alternative Medicine

August 25-26, 2014 DoubleTree by Hilton Beijing, China

## Anti aging effect of *Ferula assa-foetida* on human dermal fibroblasts *in-vitro*

Farshad Homayouni Moghadam

Shahid Sadoughi University of Medical Sciences, Iran

**Introduction:** Based on data from traditional uses of *Ferula assa-foetida* (asafoetida), several therapeutic applications were considered for this plant. Cytotoxic, anti ulcer, anti neoplasia, anti cancer, anti oxidative and lipoxygenase inhibiting effects were attributed to the extract of asafoetida. Because of these multiple actions its effects on organs of human body would be obscure. In present study we evaluated its effect on human skin fibroblasts.

**Materials and Methods:** Human dermal fibroblasts and mouse embryonic fibroblasts were used to evaluate effect of asafoetida resin gum aqueous extract on them. Senescence was induced on human dermal fibroblasts using hydrogen peroxide, senescence was established by increased B-galactosidase activity among cells. By application of different concentrations of asafoetida on cells, anti aging effect of asafoetida was evaluated. The survival rate of fibroblasts was evaluated by cell counting and methyl tetrazolium bromide (MTT) test.

**Results:** Present study showed that in low concentrations asafoetida has rejuvenating effect on senescent fibroblasts and significantly decreased the B-galactosidase activity in senescent cells ( $P < 0.05$ ). It also significantly increased the proliferation rate of human and mouse fibroblasts ( $P < 0.05$ ).

**Conclusion:** Findings of this study revealed that in low doses asafoetida has anti senescence effect and could reverse the aging process; it also increases the rate of proliferation of fibroblasts. Therefore asafoetida could be effective on prevention of occurrence of aging on skin, and it could be beneficial for healing the damaged skin.

f\_homayounim@yahoo.com