FUTURE DIRECTION

Herbs with their active secondary metabolites have immense potential to impart antioxidant, anti-inflammatory and antifibrotic properties. We must not discard opportunities for harnessing the endogenous potential of traditional medicine. The most feasible therapeutic approach may, therefore, be to block the effects of cytokines on target cells - that is, to investigate agents that inhibit the proliferation of fibroblasts, synthesis of collagen and promote degradation of abnormal collagen.

Basic fibrosis induction pathway:

a. To investigate the role of ethanolic crude extracts and secondary metabolites on the activity of extracellular matrix proteases (MMPs) and tissue inhibitor of matrix metalloproteinases (TIMPs); this would aid in acquiring a balance between collagen synthesis and degradation.

b. Exploring the TGFβ/Smad signaling pathway, by studying the effect of ethanolic crude extracts and secondary metabolites on the expression levels of Smad 2, 3, 4 complex and inhibitory Smads; smad6 and smad7 post fibrotic induction.

Translational application

c. To assess the in-vivo antifibrotic activity of the ethanolic crude extracts and secondary metabolites.

Topical medicaments

d. Formulation of a topical application comprising of the extracts and or secondary metabolites could be carried out after sufficient scientific evidence.