

A Review of the Research on Baragshun: A Natural Mineral Medicine in Traditional Mongolian Medicine

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Abstract:

Background: Baragshun, a traditional Mongolian medicine, is used to treat skin conditions, digestive diseases, and inflammatory disorders. Despite its widespread use, scientific validation of its efficacy and composition remains scarce.

Objective: This study aimed to investigate the mineral composition and biologically active substances in baragshun, and evaluate its effects on bone regeneration and toxicity.

Methods: Baragshun was sourced from Tsagaan Burgas Bag, Khovd Soum, Mongolia. Its mineral composition was analyzed by energy dispersive X-ray fluorescence spectrometry, and biologically active substances were quantified using high-sensitivity liquid chromatography and ultraviolet spectrophotometry. Toxicity (acute, chronic, accumulation) was tested in white mice. Bone regeneration effects were studied in induced fracture models (puppies and rabbits), and in bone cell cultures at the Medical University of Vienna.

Results: Analysis identified ferric citrate, papain, calcium caseinate, and tannic acid as key components. Active compounds included terramycin hydrochloride–oxytetracycline (838.64%) and D-pantothenic acid (835.47%). Baragshun significantly reduced fracture healing time by 2-3 times and promoted positive effects in bone cell cultures.

Conclusion: Baragshun shows promise in accelerating bone healing and contains biologically active compounds. No acute or chronic toxicity was observed, supporting its potential therapeutic use in bone regeneration.