

A Study of the Effect of Sri Lankan Orthopedic Traditional Treatment on Fracture Healing: A Comparative Observational Case Study

V.D.S.N. Perera¹, P.R. Waratenne²

¹*Methkirana Ayurveda Medical Centre, Padukka, Sri Lanka*

²*Faculty of Indigenous Medicine, University of Colombo, Sri Lanka*

Fractures are among the most common orthopedic problems in worldwide. Detailed descriptions of fracture management are found in Ayurveda and Sri Lankan traditional medicine. The objective of this study was to compare the effect of two Sri Lankan orthopedic traditional treatment procedures on fracture healing. Two patients with distal end radius fractures were observed for 8 weeks: One treated under the *Matara vehelle weda parampara* (Patient 01) and the other under the *Imbulmalgama weda parampara* (Patient 02). Patient 01 was treated with external medicines, while patients 02 received both external and internal medicines. The effect of treatment on pain was assessed using the Numeric Rating Scale, and other subjective parameters were evaluated through a self-prepared grading system ranging from 00 to 05. The grades for pain decreased from 10 to 00 in Patient 01 and from 10 to 01 in Patient 02. Difficulty in wrist joint movements improved from 04 to 01 in Patient 01 and from 04 to 02 in Patient 02. Difficulty in finger movements reduced from 03 to 01 in Patient 01 and from 03 to 02 in Patient 02. Tenderness was reduced from grade 03 to 01 in both patients. Patient 02 showed a more rapid reduction of symptoms, likely due to the use of additional internal medicines. X-ray analysis indicated improvement in fracture healing in both patients. An analysis of the properties of the drugs used revealed that they were dominant in *Vatashamana*, *Shothahara* and *Shulahara* properties. In conclusion, the treatment procedures used in these two traditional systems showed positive effect on fracture healing.

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