

Snakehead Consumption Enhances Wound Healing? From Tradition to Modern Clinical Practice: A Prospective Randomized Controlled Trial

ABSTRACT

Background. Snakehead fish (*Channa striatus*) is a fresh water fish indigenous to many Asia countries and believed to have medical value. Studies showed that it contains all the essential amino acids and fatty acids able to accelerate wound healing and it has antinociceptive effect. However, little human study has been done to assess the effectiveness of *Channa striatus* in wound healing. A prospective RCT has been conducted on the effect of *Channa striatus* spray versus placebo on clean wound to assess its pain control effect and cosmetic outcome. Methodology. One hundred and two patients (102) underwent clean elective surgery; postoperatively they were randomized into two groups. One group received *Channa striatus* extract spray (n=51) another group received placebo (n=51) on daily basis for 2 weeks. They were followed up on, , and weeks. Pain control effect was assessed based on Visual Analog Pain Score (VAPS) and cosmetic outcome based on Visual Analog Cosmetic Scale (VACS), Wound Evaluation Scale (WES), and Vancouver Scar Scale (VSS). Result. The patient treated with *Channa striatus* spray displayed a better outcome in terms of pain control compared to placebo. During analysis using repeated measure ANOVA, there was significant difference of patient's pain score based on VAPS between *Channa striatus* spray and placebo (F-stat (df) = 4.80 (2), p-value = 0.010). For cosmetic outcome it showed a better result in *Channa striatus* spray group for all the 3-scoring system, VACS, (F-stat (df) = 2.68 (2), p-value <0.001), WES (F-stat (df) = 3.09 (2), p-value = 0.048), and VSS (F-stat (df) = 1.72 (2), p-value = 0.011). Conclusion. Our study suggests that application of *Channa striatus* extract spray on clean wound has shown a significant better pain score result and cosmetic outcome on week 2, week 4, and week 6 comparatively with placebo.