Efficacy of Eremostachys laciniata extract on mitigation of pain after appendectomy

Oskouie JB, MD, Maghsoudi H, MD.

Surgery Department, Sina Hospital, Faculty of Medicine, Tabriz University of Medical Sciences

Introduction: With all advances in understanding the physiology of acute pain, producing new opioid and non-opioid drugs and new less invasive surgical procedures, there's some difficulties in controlling post-operative pain. Regarding to limitations in previous studies and lack of a similar study in our region, we decided to evaluate the effects of Eremostachys laciniata extract in reducing post-operative pain, reducing the use of analgesics and morbidities in first 24 hour after surgery in patients with open appendectomy.

Methods: In this clinical trial, between April 2012 to October 2012, 120 patients who were going to have appendectomy were assigned randomly into two groups of intervention (35 mg Eremostachys laciniata suppository, administered from 24 hours before surgery to 24 hours after operation) and placebo (placebo suppository, administered from 24 hours before surgery to 24 hours after operation) each including 60 patients. Pain and the need to analgesics were evaluated in recovery ward and 1, 2, 3, 4, 8, 16 and 24 hours after entering the surgical ward.

Results: Seventy two (60%) were male and 48 (40%) were female. Average age was 26.77 ± 9.07 years old. Average duration of operation was 43.52 ± 16.9 minutes (35 to 90 mins). Average severity of pain based on VAS score in recovery ward was 7.73 ± 1.17 and 8.73 ± 0.97 for case and control groups respectively ($P < 0.001$). There was such this difference in all evaluations and 24 hours after admitting the patients in the ward VAS score was 2.71 ± 0.73 and 4.23 ± 0.85 in two groups ($P < 0.001$). In the first hour 96.6% of cases (43.4% diclofenac and 53.3% tramadol) and 100% (5% diclofenac and 95% tramadol) of controls had received analgesics ($P < 0.001$). In the 24^{th} hour none of cases had received analgesics (VAS score more than 4) while 35% of controls (33.3% diclofenac and 1.7% tramadol) had received analgesics. Change of pain severity was statistically significant in Eremostachys laciniata ($P < 0.001$) and placebo group ($P < 0.001$). The difference between two groups was significant two ($P < 0.001$).

Conclusion: We can announce that Eremostachys laciniata is a substitute or supplementary drug for reducing post-operative pain after appendectomy which can be used in other centers regarding to considerable efficiency and limited side effects. Performing more studies and experiencing in other operations is necessary.
Keywords: Analgesics, Eremostachys laciniata; Appendectomy operation, Disability