



ABSTRACT

The present study was undertaken to investigate the combined anti-inflammatory effects of *Piper nigrum* and *Tamarindus indica* seed extracts against Carrageenan-induced tendonitis in Sprague-Dawley rats, an experimental model for Achilles tendonitis and compared it with that of the naturally producing clear substance made into a tablet Hyaluronic acid. Administration of Carrageenan (0.01ml) near the osteotendinous junction of the left Achilles tendon resulted in an increase of inflammatory response. Among the combined seed extracts, T₃ (75% *P.nigrum* with 25% *T.indica*) showed the highest potential in lowering or healing Achilles tendonitis. Histopathological analysis of the tendons also revealed that mononuclear infiltration and hyperplasia of tendons observed in rats were alleviated by the combined treatment of both plant extracts. Thus, the present study clearly indicated that combined *Piper nigrum* and *Tamarindus indica* possess promising anti-inflammatory properties against Carrageenan-induced Achilles tendonitis by suppressing inflammation and tissue impairment.

Key words: *Piper nigrum*, *Tamarindus indica*, Carrageenan, Achilles tendonitis, Hyaluronic acid

JONACAR S. LAS REBANTAN, BS
Chair, Student Research Committee

ANGEL L. MENCUNO, PhD
Chair, DSO

This experimental research is hereby officially accepted as partial fulfillment of the requirements for the degree of Bachelor of Science in Medical Research

JOSUEY A. MENDOZA, PhD
Dean