

Extended Abstract

# Effect of *Nigella sativa* Oil in a Rat Model of Adjuvant-Induced Arthritis <sup>†</sup>

Cinzia Nasuti <sup>1</sup>, Laura Bordoni <sup>2</sup>, Donatella Fedeli <sup>2</sup> and Rosita Gabbianelli <sup>2,\*</sup>

<sup>1</sup> Unit of Toxicology and Pharmacology, School of Pharmacy, University of Camerino, 62032 Camerino, Italy; cinzia.nasuti@unicam.it

<sup>2</sup> Unit of Molecular biology, School of Pharmacy, University of Camerino, 62032 Camerino, Italy; laura.bordoni@unicam.it (L.B.); donatella.fedeli@unicam.it (D.F.)

\* Correspondence: rosita.gabbianelli@unicam.it; Tel.: +39-0737-403208

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Rheumatoid arthritis is characterized by chronic progressive inflammation and damage at joints leading to disability in about 250 million people between 30 and 60 years of age. Here we studied the capacity of *Nigella sativa* oil cultivar; produced in the Marche region (Italy), to slow the onset/progression of disease in an adjuvant-induced arthritis animal model [1]. *Nigella sativa* oil was chosen for its anti-inflammatory and antioxidant properties previously measured in a human in vitro model of low-grade inflammation [2]. In vitro data showed antioxidant and anti-inflammatory properties of this oil; in particular, IL-1 beta and IL6 levels were decreased by *Nigella sativa* oil [2]. The in vivo indicated that 25 days of treatment with *Nigella sativa* oil can reduce the edema of inoculated and contralateral paws in the animal model of arthritis. Anti-hyperalgesic and anti-allodynic actions of *Nigella sativa* were observed during the anti-inflammatory process. Arthritic scoring was improved only in the positive control treated with indomethacin

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