

**TI: Effect of Nigella sativa volatile oil on Jurkat T-cell leukemia polypeptides.**

**AU: Hailat-N; Bataineh-Z; Lafi-S; Raweily-E; Aqel-M; Al-Katib-M; Hanash-S**

**AD: Molecular Pathology Laboratory, Department of Clinical Veterinary Sciences, Faculty of Veterinary Medicine, Jordan University of Science and technology, Irbid-Jordan.**

**SO: International-Journal-of-Pharmacognosy. 1995, 33:1, 16-20; 2 p1:16 ref.**

**PY: 1995.**

**Nigella sativa exhibits bronchodilatory, hypotensive, antibacterial and immunopotentiating activities. The effect of the volatile oil of N. sativa seeds on the cellular polypeptides of Jurkat T leukaemia cells was analyzed using two-dimensional polyacrylamide gel electrophoresis (2nd page) and silver staining. Two polypeptide spots, with a MW of 24 Kda and isoelectric points of 5.3 (acidic protein) and 5.8 (basic protein), were changed in their intensity following treatment. The basic protein was decreased and the acidic protein was increased after 10 min of N. sativa volatile oil treatment. The 2 protein spots had a pinkish color after silver staining. Analysis of [32P]-labelled Jurkat cells did not reveal any radioactivity in the vicinity of these 2 proteins. Analysis of lymphoid and non-lymphoid University, Alexandria, Egypt cell lines treated with activating and differentiating agents did not reveal any changes in these 2 proteins. Several normal cells and neuroblastoma tumours with and without N-myc gene amplification expressed the basic protein only. Immature leukaemic cells expressed the acidic protein in addition to the basic protein spot. These results suggest that the changes in these protein spots as a result of N. sativa treatment may reflect a role in its biological effect(s), perhaps, through post-translation modification of the protein.**

**TI: Inhibitory action of black cummin (Nigella sativa) against Listeria monocytogenese).**

**AU: Mahmoud-HMA**

**AD: Department of Dairy Science, Faculty of Agriculture, Alexandria**

**SO: Alexandria-Journal-of-Agricultural-Resdarch. 1993, 38:1, 123-134; 12 ref.**

**PY: 1993**

**Black cummin (*Nigella sativa*) seeds and the oil extract but not the water extract from them, showed antibacterial activity against all 5 strains of *Listeria monocytogenes* tested; the inhibitory effect was similar on all 5 strains, with the minimum inhibitory concentration being 0.5 and 1.5% for seeds and oil extract respectively. The inhibitory property of the oil extract was not affected by heating at 65°C/30 min, 100°C/15 or 30 min, or 121°C/15 min. when seeds or oil extract were added to processed cheese contaminated with about  $4 \times 10^4$  c.f.u. *L. monocytogenes*/g, the listeria were completely eliminated after incubation at 37°C/24 h compared with an increase in count to about  $10^8$ /g in control cheese.**

**IT: CNS and analgesic studies on *nigella stiva*.**

**AU : khanna \_ T ; Zaidi - FA ; Dandiya - PC**

**AD : Department of pharmacology, Jamia hamia Hamdard , hamdard Nagar, New Deihhi 110062, India.**

**SO : Fitoterapia.1993 , 64: 5 , 407 - 410 ; 11 ref .**

**PY : 1993**

**Seed extracts of this medicinally-used species exhibit antibacterial, anti-inflammatory, CNS-depressant and analgesic activities. The seed oil has been used as a local anaesthetic. In studies with rats and mice, the oil showed significant CNS-depressant activity and a very marked analgesis effect at 1 ml/kg, p.o. No evidence of toxicity was noted at 10 times this dosage. It is suggested that the analgesic activity may be due to the presence of an opioid principle in the oil.**

**IT : Investigation of the technological properties of *nigella sativa* (black**

**cumin ) seed oil .**

**AU : Ustun , g ; Kent , - ; Cekin , - N ; Civelekoglu**

**AD : Department of chemical Engineering , Faculty of chemistry - Me**

**Tallurgy , technical university of Istanbul , Turkey .**

**SO : Journal - of the - american - oil - chemists, - society . 1990 ,**

**67 : 12 : 12 , 958 - 960; 12 ref .**

**PY : 1990**

**LA : english**

**Oil from the seeds of *N. sativa* (vernacular name: Kalonji) exhibited CNS depressant and potent analgesic effects in rats and mice. The analgesic action appears to be due to the presence of an opioid principle in the oil.**

**IT : Galactopietic effect of nigella sativa ( H \_ Kalonji ) in clinical cases OF**

**Agalactia in goats .**

**AU : Vihan - vs ; panwar . HS**

**AD : cent . Inst . Res . on goat , Makhdoom , P . O - farah , mathura ( u .p.)**

**India . SO : Indian - veterinary- journal . 1987 , 64 : 4 , 347 - 349 ; 8 ref .**

**PY : 1987**

**LA : English**

**Powered seeds of *Nigella sativa* were given daily for 10 days at a level of 100mg/kg body weight, mixed with concentrates, to 6 goats with agalactia (test group). Av. Daily milk yield of 6 control agalactic goats for pre-treatment (6 days), treatment (10 days) and post-treatment (20 days) periods was 60.889, 59.66 and 57.91 ml, resp. Av. daily milk yield of test group for same periods was 63.61, 88.25 and 110.33ml, resp. There was a significant ( $P < 0.01$ ) increase in milk yield for test group during treatment and post-treatment periods compared with pre-treatment period. Results suggest *N. sativa* may be a useful galactagogue.(page number 6)**

**IT: Effect of the volatile oil of *Nigella sativa* seeds on the uterine smooth**

**Muscle**

**of rat and guinea pig .**

**AU : Aqe -nM; Shaheen - R**

**AD : College of Medicine , University of Jordan , Amman , Jordan .**

**SG : J- Ethnopharmacol . 1996 May ; 52(1) ; 23 - 6**

**ISSN : 0378 - 8741**

**LA : ENGLISH**

**CP : IRELAND**

**The effects of the volatile oil of *Nigella sativa* seeds on the uterine smooth muscle of rats and guinea pigs was tested in vitro using isolated uterine horns. The volatile oil of *Nigella***

saliva seeds inhibited the spontaneous movements of rat and guinea pig uterine smooth muscle and also the contractions induced by oxytocin stimulation. These effects were concentration-dependent and reversible by tissue washing. These data suggest that this volatile oil may have some anti-oxytocic potential.

The effects of *Nigella sativa* (*N. sativa*) seeds and their soluble fractions were studied in vitro on lymphocyte response to different mitogens and on polymorphonuclear leukocyte phagocytic activity. No stimulatory effect of *N. sativa* was detected on lymphocyte response to phytohemagglutinin, concanavalin-A or pokeweed mitogen. A stimulatory effect of *N. sativa* was noticed on the lymphocyte response to pooled allogeneic cells. This effect was more pronounced when the low molecular weight (<10 kDa) fraction was used and varied from one normal individual to another (25% to 825%). *N. sativa* enhanced the production of interleukin-3 by human lymphocytes when cultured with pooled allogeneic cells or without any added stimulator. *N. sativa* did not, however, enhance or suppress interleukin-2 secretion by mitogen activated peripheral blood mononuclear cells. Interestingly, *N. sativa* increased interleukin-1 beta, suggesting therefore, that it has an effect on macrophages. It also suppressed the leukocyte chemiluminescence activity using phorbol myristate acetate and Zymosan as stimulants. No effect of *N. sativa* or its fractions was, however, noticed on bacterial phagocytosis or killing when *Staphylococcus aureus* was used, indicating that the decrease in chemiluminescence activity in the presence of *N. sativa* is not relevant to the bactericidal activity

**TI: Inhibition of histamine release from mast cells by nigellone .**

**AU : Chakravarty- N**

**AD : Odense university , Denmark .**

**SO : ANN - Allergy , 1993 Mar; 70(3): 237 - 42**

**ISSn: 0003 - 4738**

**PY : 1993**

**LA : English**

**CP: United - states**

**IT: Hypoglycemic effect of the volatile oil of *Nigella stiva* seeds .**

**AU : AL- Hader - A ; Aqel - M ; HASAN - Z**

**CS : Dep . physiol ..,Fac . Med . , Jordan Univ . Sci and**

**Technol . , P . O .**

**Box 3030**

**Irbid , Jordan**

**SO : International Journal of Pharmacognosy 31 (2) : 96-100**

**PY : 1993**

**CO : Ijpyew**

**LA : English**

**AB : The effects of the volatile oil extracted from Nigella Sativa seeds**

**On the levels of glucose and insulin were investigated in the rabbit . the**

**I . P administration of the volatile oil of N . Stiva Seeds ( 50mg \kg ) to**

**Fasting normal and alloxan - diabetic rabbits produced significant hypogly**

**Cemic effect. These effect were consistent and time - dependent . In**

**Normal animals , 15% and 23% decreases in fasting plasma glucose levels**

**Were detected 4 h and 6h , respectively , after treatment .**

**The same treatme**

**-nt produced 12% and 21% decreases in the fasting glucose levels in diabetic**

**rabbits at the 4 h and the 6h time intervals , respectively .**

**The administration**

**of the volatile oil was not found to alter basal insulin levels in all animal gro**

**-ups , which might suggest a non - insulin - mediated mechanism of action**

**of the demonstrated hypoglycemic activity . The mod of action of the hypog**

**-lycemic effects exhibited by the volatile oil extracted from N . Sativa seeds**

**rema ins to be elucidated**

**IT : The relaxing effect of the volatile oil Nigella sativa seeds on vascular**

**Smooth muscle.**

**AU : AQEL- M - B**

**CS : Dep . Anatomy , Fac . Med . Univ . Jordan , , Amman , Jordan**

**SO : DIRASAT SERIES B PURE AND APPLIED SCIENCES SCIENCES**

**19(2) : 91- 100**

**PY : 1992 (1993)**

**CO : DJSSE8**

**LA : English**

**LS : In Engl . with Engl . and Arabic summ .**

**AB : The effects of the volatile oil of Nigella sativa seeds on the vascular**

**Smooth muscle of rabbit were tested in vitro using isolated segments of rabbit**

**Aorta (rings) . The volatile oil of N . sativa seeds inhibited the contractions**

**Of rabbit aortic rings induced by norepinephrine stimulation in  $Ca^{2+}$ -con**

**Taining colution . but not in  $Ca^{2+}$ -free solution . this inhibition was dose**

**- dependent and reversible . Also, the volatile oil inhibited the contraction**

**- of rabbit aortic rings induced by high potassium ( $K^+$ ) solution .These**

**- data suggest that the volatile oil of N . sativa seeds possesses a direct**

**- vascular smooth muscle relaxant effect , possibly by interfering with**

**- the influx of extra - c ellular  $Ca^{2+}$ .**

**- (23)**