

Literatur

- Abbas AS, Sheikh N. Counter effects of *N. Sativa* L. and *P. ovate* L. on indicative markers of non alcoholic fatty liver disease. *Pak J Pharm Sci* 2016;29:185-91.
- Abbasnezhad A, Niazmand S, Mahmoudabady M, Soukhtanloo M, Rezaee SA, Mousavi SM. *Nigella sativa* seed decreases endothelial dysfunction in streptozotocin-induced diabetic rat aorta. *Avicenna J Phytomed* 2016;6:67-76.
- Abd-Elbaset M, Arafa EA, El Sherbiny GA, Abdel-Bakky MS, Elgendy AN. Thymoquinone mitigate ischemia-reperfusion-induced liver injury in rats: a pivotal role of nitric oxide signaling pathway. *Naunyn Schmiedebergs Arch Pharmacol* 2017;390:69-76.
- Abdelghany AH, BaSalamah MA, Idris S, Ahmad J, Refaat B. The fibrolytic potentials of vitamin D and thymoquinone remedial therapies: insights from liver fibrosis established by CCl4 in rats. *J Transl Med* 2016;14:281.
- Abdel-Aziz M, Abass A, Zalata K, Abd Al-Galel T, Allam U, Karrouf G. Effect of dexamethasone and *Nigella sativa* on inducible nitric oxide synthase in the lungs of a murine model of allergic Asthma. *Iran J Allergy Asthma Immunol* 2014;13:324-34.
- Abdel-Daim MM, Ghazy EW. Effects of *Nigella sativa* oil and ascorbic acid against oxytetracycline-induced hepato-renal toxicity in rabbits. *Iran J Basic Med Sci* 2015;18:221-7.
- Abdel-Moneim AM, Essawy AE, Hamed SS, Abou-Gabal AA, Alzergy AA. Protective effect of *Nigella sativa* seeds against spermatocyte chromosomal aberrations and genotoxicity induced by carbon tetrachloride in mice. *Environ Sci Pollut Res Int* 2017;24:11677-11682.
- AO, Abdel-Rahman MS, ElWasei FM. Blockade of nitric oxide overproduction and oxidative stress by *Nigella sativa* oil attenuates morphine-induced tolerance and dependence in mice. *Neurochem Res* 2010;35:1557-65.
- Abidi A, Robbe A, Kourda N, Ben Khamsa S, Legrand A. *Nigella sativa*, a traditional Tunisian herbal medicine, attenuates bleomycin-induced pulmonary fibrosis in a rat model. *Biomed Pharmacother* 2017;90:626-637.
- Adam GO Abdel-Zaher, Rahman MM, Lee SJ, Kim GB, Kang HS, Kim JS, Kim SJ. Hepatoprotective effects of *Nigella sativa* seed extract against acetaminophen-induced oxidative stress. *Asian Pac J Trop Med* 2016;9:221-7.
- Ahmad A, Khan RM, Alkharfy KM, Raish M, Al-Jenoobi FI, Al-Mohizea AM. Effects of Thymoquinone on the pharmacokinetics and pharmacodynamics of glibenclamide in a rat model. *Nat Prod Commun* 2015;10:1395-8.
- Ahmad Alobaidi AH. Effect of *Nigella sativa* and *Allium sativum* coadministered with simvastatin in dyslipidemia patients: a prospective, randomized, double-blind trial. *Antinflamm Antiallergy Agents Med Chem* 2014;13:68-74.
- Ahmad SS, Najmi AK, Kaundal M, Akhtar M. Gastroprotective effect of thymoquinone on water immersion restraint stress induced ulceration in rats. *Drug Res (Stuttg)* 2017;67:366-372.
- Ahamad Bustamam MS, Hadithon KA, Mediani A, Abas F, Rukayadi Y, Lajis N, Shaari K, Safinar Ismail I. Stability study of Algerian *Nigella sativa* seeds stored under different conditions. *J Anal Methods Chem* 2017;2017:7891434.
- Ahmed MM, El-Shamy KA, El-Nabarawy SK, Elbaioy MA, El-Qattan GM. *Nigella sativa* tea improved serum paraoxonase-1 activity, glycemic control and lipid profile in type 2 diabetes mellitus. *J Appl Sci Res* 2012;8:5897-902.
- Ahmed JH, Abdulmajeed IM. Effect of *Nigella sativa* (black seeds) against methotrexate-induced nephrotoxicity in mice. *J Intercult Ethnopharmacol* 2016;6:9-13.
- Akhondian J, Parsa A, Rakhshande H. The effect of *Nigella sativa* L. (black cumin seed) on intractable pediatric seizures. *Med Sci Monit* 2007;13:CR555-9.
- Akhondian J, Kianifar H, Raoofiaee M, Moayedpour A, Toosi MB, Khajedaluee M. The effect of thymoquinone on intractable pediatric seizures (pilot study). *Epilepsy Res* 2011;93:39-43.
- Akhtar MS, Riffat S. Field trial of *Saussurea lappa* roots against nematodes and *Nigella sativa* seeds against cestodes in children. *J Pak Med Assoc* 1991;41:185-7.
- Akintunde JK, Abubakar OK. Novel therapeutic approaches of natural oil from black seeds and its underlying mechanisms against kidney dysfunctions in haloperidol-induced male rats. *Drug Metab Pers Ther* 2017;32:97-107.
- Al-Gareeb AI. The subtle central effect of nutraceuticals: Is it placebo or nocebo? *J Intercult Ethnopharmacol* 2015;4:221-3.
- Ali B, Amin S, Ahmad J, Ali A; Mohd Ali, Mir SR. Bioavailability enhancement studies of amoxicillin with *Nigella*. *Indian J Med Res* 2012;135:555-9.
- Ali M, Eldahab MA, Mansour HA, Nigm A. *Schistosoma mansoni*: Antiparasitic effects of orally administered *Nigella sativa* oil and/or *Chroococcus turgidus* extract. *Acta Biol Hung* 2016;67:247-60.
- Al-Jenoobi FI, Al-Thukair AA, Abbas FA, Ansari MJ, Alkharfy KM, Al-Mohizea AM, Al-Suwayeh SA, Jamil S. Effect of black seed on dextromethorphan O- and N-demethylation in human liver microsomes and healthy human subjects. *Drug Metab Lett* 2010;4:51-5.
- Al-Jenoobi FI, Al-Suwayeh SA, Muzaffar I, Alam MA, Al-Kharfy KM, Korashy HM, Al-Mohizea AM, Ahad A, Raish M. Effects of *Nigella sativa* and *Lepidium sativum* on cyclosporine pharmacokinetics. *Biomed Res Int* 2013;2013:953520.
- Al-Jenoobi F, Korashy HM, Ahad A, Raish M, Al-Mohizea AM, Alam MA, Al-Suwayeh SA, Alkharfy KM. Potential inhibitory effect of herbal medicines on rat hepatic cytochrome P450 2D gene expression and metabolic activity. *Pharmazie* 2014;69:799-803.
- Al-Jenoobi FI, Ahad A, Mahrous GM, Al-Mohizea AM, Alkharfy KM, Al-Suwayeh SA. Effects of fenugreek, garden cress, and black seed on theophylline pharmacokinetics in beagle dogs. *Pharm Biol* 2015;53:296-300.
- Alkharfy KM, Al-Jenoobi F, Al-Mohizea AM, Al-Suwayeh SA, Khan RM, Ahmad A. Effects of *Lepidium sativum*, *Nigella sativa* and *Trigonella foenum-graecum* on phenytoin pharmacokinetics in beagle dogs. *Phytother Res* 2013;27:1800-4.
- Al-Mohizea AM1, Ahad A, El-Maghraby GM, Al-Jenoobi FI, Alkharfy KM, Al-Suwayeh SA. Effects of *Nigella sativa*, *Lepidium sativum* and *Trigonella foenum-graecum* on sildenafil disposition in beagle dogs. *Eur J Drug Metab Pharmacokinet* 2015;40:219-24.
- Alsamarai AM, Abdulsatar M, Ahmed Alobaidi AH. Evaluation of topical black seed oil in the treatment of allergic rhinitis. *Antinflamm Antiallergy Agents Med Chem* 2014;13:75-82.
- Al-Seeni MN, El Rabey HA, Zamzami MA, Alnefayee AM. The hepatoprotective activity of olive oil and *Nigella sativa* oil against CCl4 induced hepatotoxicity in male rats. *BMC Complement Altern Med* 2016;16:438.
- Al-Shahab NA, Husain FM, Ahmed F, Khan RA3 Ahmad I, Alsharaeh E, Khan MS, Hussain A, Rehman MT, Yusuf M, Hassan I, Khan JM, Ashraf GM, Alsalmeh AM, Al-Ajmi MF, Tarasov VV, Aliev G. Biogenic synthesis of Zinc oxide nanostructures from *Nigella sativa* seed: Prospective role as food packaging material inhibiting broad-spectrum quorum sensing and biofilm. *Sci Rep* 2016;6:36761.
- Al-Trad B, Al-Batayneh K, El-Metwally S, Alhazimi A, Ginawi I, Alaraj M, Alkofahi E, Aljumaili O, Kosba A. *Nigella sativa* oil and thymoquinone ameliorate albuminuria and renal extracellular matrix accumulation in the experimental diabetic rats. *Eur Rev Med Pharmacol Sci* 2016;20:2680-8.
- Amin S, Kohli K, Khar RK, Mir SR, Pillai KK. Mechanism of *in vitro* percutaneous absorption enhancement of carvedilol by penetration enhancers. *Pharm Dev Technol* 2008;13:533-9.
- Amin F, Islam N, Anila N, Gilani AH. Clinical efficacy of the co-administration of Turmeric and Black seeds (Kalongi) in metabolic syndrome – a double blind randomized controlled trial - TAK-MetS trial. *Complement Ther Med* 2015;23:165-74.
- Amini M, Fallah Huseini H, Mohtashami R, Sadeqi Z, Ghamarcherdi MA. Hypolipidemic effects of *Nigella sativa* L. seeds oil in healthy volunteers: A randomized, double-blind, placebo-controlled clinical trial. *J Med Plants* 2011;4:133-8.
- Ansari ZM, Nasiruddin M, Khan RA, Haque SF. Protective role of *Nigella sativa* in diabetic nephropathy: A randomized clinical trial. *Saudi J Kidney Dis Transpl* 2017;28:9-14.
- Arif M, Thakur SC, Datta K. Implication of thymoquinone as a remedy for polycystic ovary in rat. *Pharm Biol* 2016;54:674-85.
- Arslan E, Sayin S, Demiras S, Cakar M, Somak NG, Yesilkaya S, Saglam K. A case study report of acute renal failure associated with *Nigella sativa* in a diabetic patient. *J Integr Med* 2013;11:64-6.
- Arumugam P, Subramanian R, Priyadharsini JV, Gopalswamy J. Thymoquinone inhibits the migration of mouse neuroblastoma (Neuro-2a) cells by down-regulating MMP-2 and MMP-9. *Chin J Nat Med* 2016;14:904-912.
- Asaduzzaman Khan MA, Tania M, Fu S, Fu J. Thymoquinone, as an anticancer molecule: from basic research to clinical investigation. *Oncotarget* 2017;8:51907-51919.
- Asiaei F, Fazel A, Rajabzadeh AA, Hosseini M, Beheshti F, Seghatoleslam M. Neuroprotective effects of *Nigella sativa* extract upon the hippocampus in PTU-induced hypothyroidism juvenile rats: A stereological study. *Metab Brain Dis* 2017;32:1755-1765.
- Assi MA, Hezme MN, Abba Y, Yusuf MS, Haron AW, Rajion MA, Al-Zuhairy MA. Prophylactic effect of *Nigella sativa* against lead acetate induced changes in spermogram, reproductive hormones and gonadal histology of rats. *Vet World* 2016;9:1305-1311.
- Atta MS, Almadaly EA, El-Far AH, Saleh RM, Assar DH, Al Jaouni SK, Mousa SA. Thymoquinone Defeats Diabetes-Induced Testicular Damage in Rats Targeting Antioxidant, Inflammatory and Aromatase Expression. *Int J Mol Sci* 2017;18: E919.
- Badar A, Kaatabi H, Bamosa A1, Al-Elq A, Abou-Hozaifa B, Lebda F, Alkhadra A, Al-Almaie S. Effect of *Nigella sativa* supplementation over a one-year period on lipid levels, blood pressure and heart rate in type-2 diabetic patients receiving oral hypoglycemic agents: nonrandomized clinical trial. *Ann Saudi Med* 2017;37:56-63.
- Bakal SN, Bereswill S, Heimesaat MM. Finding novel antibiotic substances from medicinal plants - antimicrobial properties of *Nigella sativa* directed against multidrug-resistant bacteria. *Eur J Microbiol Immunol (Bp)* 2017;7:92-98.
- Balaha MF, Tanaka H, Yamashita H, Abdel Rahman MN, Inagaki N. Oral *Nigella sativa* oil ameliorates ovalbumin-induced bronchial asthma in mice. *Int Immunopharmacol* 2012;14:224-31.
- Balbaa M, El-Zeftawy M, Ghareeb D, Taha N, Mandour AW. *Nigella sativa* relieves the altered insulin receptor signaling in streptozotocin-induced diabetic rats fed with a high-fat diet. *Oxid Med Cell Longev* 2016;2016:2492107.
- Balbaa M, Abdulmalek SA, Khalil S. Oxidative stress and expression of insulin signaling proteins in the brain of diabetic rats: Role of *Nigella sativa* oil and antidiabetic drugs. *PLoS One* 2017;12:e0172429.
- Bamosa AO, Kaatabi H, Lebdaa FM, Elq AM, Al-Sultanb A. Effect of *Nigella sativa* seeds on the glycemic control of patients with type 2 diabetes mellitus. *Indian J Physiol Pharmacol* 2010;54:344-54.

- Bamosa A, Kaatabi H, Badar A, Al-Khadra A, Al Elq A, Abou-Hozafa B, Lebda F, Al-Almaie S. *Nigella sativa*: A potential natural protective agent against cardiac dysfunction in patients with type 2 diabetes mellitus. *J Family Community Med* 2015;22:88-95.
- Banerjee S, Kaseb AO, Wang Z, Kong D, Mohammad M, Padhye S, Sarkar FH, Mohammad RM. Antitumor activity of gemcitabine and oxaliplatin is augmented by thymoquinone in pancreatic cancer. *Cancer Res* 2009;69:5575-83.
- Bano F, Ahmed A, Parveen T, Haider S. Anxiolytic and hyperlocomotive effects of aqueous extract of *Nigella sativa* L. seeds in rats. *Pak J Pharm Sci* 2014;27(5 Spec no):1547-52.
- Barakat EM, El Wakeel LM, Hagag RS. Effects of *Nigella sativa* on outcome of hepatitis C in Egypt. *World J Gastroenterol* 2013;19:2529-36.
- Bargi R, Asgharzadeh F, Beheshti F, Hosseini M, Sadeghnia HR, Khazaei M. The effects of thymoquinone on hippocampal cytokine level, brain oxidative stress status and memory deficits induced by lipopolysaccharide in rats. *Cytokine* 2017;96:173-184.
- Bashir MU, Qureshi HJ. Analgesic effect of *Nigella sativa* seeds extract on experimentally induced pain in albino mice. *J Coll Physicians Surg Pak* 2010;20:464-7.
- Bashir MU, Qureshi HJ, Saleem T. Comparison of antiinflammatory activity of *Nigella sativa* and diclofenac sodium in albino rats. *J Ayub Med Coll Abbottabad* 2015;27:523-6.
- Benhelima A, Kaid-Omar Z, Hemida H, Benmahdi T, Addou A. Nephroprotective and diuretic effect of *Nigella sativa* seed oil on lithiasic Wistar rats. *Afr J Tradit Complement Altern Med* 2016;13:204-214.
- Beyazcicek E, Ankarali S, Beyazcicek O, Ankarali H, Demir S, Ozmerdivenli R. Effects of thymoquinone, the major constituent of *Nigella sativa* seeds, on penicillin-induced epileptiform activity in rats. *Neurosciences (Riyadh)* 2016;21:131-7.
- Bin Sayeed MS, Asaduzzaman M, Morshed H, Hossain MM, Kadir MF, Rahman MR. The effect of *Nigella sativa* Linn. seed on memory, attention and cognition in healthy human volunteers. *J Ethnopharmacol* 2013;148:780-6.
- Bin Sayeed MS, Shams T, Fahim Hossain S, Rahman MR, Mostofa A, Fahim Kadir M, Mahmood S, Asaduzzaman M. *Nigella sativa* L. seeds modulate mood, anxiety and cognition in healthy adolescent males. *J Ethnopharmacol* 2014;152:156-62.
- Bonhomme A, Poreaux C, Jouen F, Schmutz JL, Gillet P, Barbaud A. Bulbous drug eruption to *Nigella sativa* oil: Consideration of the use of a herbal medicine – clinical report and review of the literature. *J Eur Acad Dermatol Venereol* 2017;31:e217-e219.
- Boudiaf K, Hurtado-Nedelec M, Belambri SA, Marie JC, Derradji Y, Benboubetra M, El-Benna J, Dang PM. Thymoquinone strongly inhibits fMLF-induced neutrophil functions and exhibits anti-inflammatory properties in vivo. *Biochem Pharmacol* 2016;104:62-73.
- Boskabady MH, Javan H, Sajady M, Rakhshandeh H. The possible prophylactic effect of *Nigella sativa* seed extract in asthmatic patients. *Fundam Clin Pharmacol* 2007;21:559-66.
- Boskabady MH, Farhadi J. The possible prophylactic effect of *Nigella sativa* seed aqueous extract on respiratory symptoms and pulmonary function tests on chemical war victims: a randomized, double-blind, placebo-controlled trial. *J Altern Complement Med* 2008;14:1137-44.
- Boskabady MH, Mohsenpoor N, Takaloo L. Antiasthmatic effect of *Nigella sativa* in airways of asthmatic patients. *Phytomedicine* 2010;17:707-13.
- Büyükköztürk S, Gelincik A, Özşeker F, Genç S, Savran FO, Kiran B, Yillar G, Erden S, Aydın F, Colakoglu B, Dal M, Ozer H, Bilir A. *Nigella sativa* (black seed) oil does not affect the T-helper 1 and T-helper 2 type cytokine production from splenic mononuclear cells in allergen sensitized mice. *J Ethnopharmacol* 2005;100:295-8.
- Bukhari MH, Khalil J, Qamar S, Qamar Z, Zahid M, Ansari N, Bakhshi IM. Comparative gastroprotective effects of natural honey, *Nigella sativa* and cimetidine against acetylsalicylic acid induced gastric ulcer in albino rats. *J Coll Physicians Surg Pak* 2011;21:151-6.
- Canayakin D, Bayir Y, Kilic Baygutalp N, Sezen Karaoglan E, Atmaca HT, Kocak Ozgeris FB, Keles MS, Halici Z. Paracetamol-induced nephrotoxicity and oxidative stress in rats: the protective role of *Nigella sativa*. *Pharm Biol* 2016;54:2082-91.
- Caskurlu T, Kanter M, Erboğa M, Erboğa ZF, Özgül M, Atis G. Protective effect of *Nigella Sativa* on renal reperfusion injury in rat. *Iran J Kidney Di.* 2016;10:135-43.
- Cheema MA, Nawaz S, Gul S, Salman T, Naqvi S, Dar A, Haleem DJ. Neurochemical and behavioral effects of *Nigella sativa* and *Olea europaea* oil in rats. *Nutr Neurosci* 2016:1-10.
- Chen MC, Lee NH, Hsu HH, Ho TJ, Tu CC, Hsieh DJ, Lin YM, Chen LM, Kuo WW, Huang CY. Thymoquinone induces caspase-independent, autophagic cell death in CPT-11-resistant lovo colon cancer via mitochondrial dysfunction and activation of JNK and p38. *J Agric Food Chem* 2015;63:1540-6.
- Chen L, Li B, Chen B, Shao Y, Luo Q, Shi X, Chen Y. Thymoquinone alleviates the experimental diabetic peripheral neuropathy by modulation of inflammation. *Sci Rep* 2016 22:6:31656.
- Cherkaoui-Tangi K, Israili ZH, Lyoussi B. Vasorelaxant effect of essential oil isolated from *Nigella sativa* L. seeds in rat aorta: Proposed mechanism. *Pak J Pharm Sci* 2016;29:1-8.
- Cingi C, Eskizmir G, Burukoğlu D, Erdoğan N, Ural A, Ünlü H. The histopathological effect of thymoquinone on experimentally induced rhinosinusitis in rats. *Am J Rhinol Allergy* 2011;25:e268-72.
- Cobourne-Duval MK, Taka E, Mendonca P, Bauer D, Soliman KF. The antioxidant effects of thymoquinone in activated BV-2 murine microglial cells. *Neurochem Res* 2016;41:3227-3238.
- Dastjerdi MN, Mehdiabady EM, Iranpour FG, Bahramian H. Effect of thymoquinone on p53 gene expression and consequence apoptosis in breast cancer cell line. *Int J Prev Med* 2016;7:66.
- Datau EA, Wardhana, Surachmanto EE, Pandelaki K, Langi JA, Fias. Efficacy of *Nigella sativa* on serum free testosterone and metabolic disturbances in central obese male. *Acta Med Indones* 2010;42:130-4.
- Davidson E, Cameron M, Chrubasik S. Factors affecting the effectiveness of topical NSAIDs. *Am J Ther Am J Ther*, 2016; 23: e977-e978
- Dehkordi FR, Kamkha AF. Antihypertensive effect of *Nigella sativa* seed extract in patients with mild hypertension. *Fundam Clin Pharmacol* 2008;22:447-52.
- Dirican A, Erten C, Atmaca H, Bozkurt E, Kucukzeybek Y, Varol U, Oktay Tarhan M, Karaca B, Uslu R. Enhanced cytotoxicity and apoptosis by thymoquinone in combination with zoledronic acid in hormone- and drug-resistant prostate cancer cell lines. *J BUON* 2014;19:1055-61.
- Dirjomuljono M, Kristyono I, Tjandrawinata RR, Nofiarny D. Symptomatic treatment of acute tonsillo-pharyngitis patients with a combination of *Nigella sativa* and *Phyllanthus niruri* extract. *Int J Clin Pharmacol Ther* 2008;46:295-306.
- Dollah MA, Parhizkar S, Latiff LA, Bin Hassan MH. Toxicity effect of *Nigella sativa* on the liver function of rats. *Adv Pharm Bull* 2013;3:97-102.
- Duncker SC, Philippe D, Martin-Paschoud C, Moser M, Mercenier A, Nutten S. *Nigella sativa* (black cumin) seed extract alleviates symptoms of allergic diarrhea in mice, involving opioid receptors. *PLoS One* 2012;7:e39841.
- Dur A, Kose H, Kocycigit A, Kocaman O, Ismayilova M, Sonmez FC. The anti-inflammatory and antioxidant effects of thymoquinone on cerulein induced acute pancreatitis in rats. *Bratisl Lek Listy* 2016;117:614-618.
- Dwarampudi LP, Palaniswamy D, Nithyanantham M, Raghu PS. Antiparasitic activity and cytotoxicity of ethanolic extract of *Nigella sativa* seeds. *Pharmacogn Mag* 2012;8:268-72.
- Ebrahimi SS, Oryan S, Izadpanah E, Hassanzadeh K. Thymoquinone exerts neuroprotective effect in animal model of Parkinson's disease. *Toxicol Lett* 2017;276:108-114.
- Edizer DT, Yigit O, Cinar Z, Gul M, Kara E4 Yigitcan B, Hayir D, Atas A. Protective role of intratympanic *Nigella sativa* oil against gentamicin induced hearing loss. *Int J Pediatr Otorhinolaryngol* 2017;97:83-88.
- Effenberger-Neidnicht K, Schobert R. Combinatorial effects of thymoquinone on the anti-cancer activity of doxorubicin. *Cancer Chemother Pharmacol* 2011;67:867-74.
- Eida OM, El-Shafei HA, Nemeir YA, El Safhi MB. In vivo and in vitro efficacy of *Nigella sativa* aqueous extract on *Blastocystis hominis*. *J Egypt Soc Parasitol.* 2016;46:27-34.
- Elbarbry F, Ragheb A, Marfleet T, Shoker A. Modulation of hepatic drug metabolizing enzymes by dietary doses of thymoquinone in female New Zealand White rabbits. *Phytother Res* 2012;26:1726-30.
- El-Ebiary AA, El-Ghaiesh S, Hantash E, Alomar S. Mitigation of cadmium-induced lung injury by *Nigella sativa* oil. *Environ Sci Pollut Res Int* 2016;23:25356-25363.
- El-Far AH, Korshom MA, Mandour AA, El-Bessoumy AA, El-Sayed YS. Hepatoprotective efficacy of *Nigella sativa* seeds dietary supplementation against lead acetate-induced oxidative damage in rabbit – Purification and characterization of glutathione peroxidase. *Biomed Pharmacother* 2017;89:711-718.
- Elkady AI, Hussein RA, El-Assouli SM. Mechanism of action of *Nigella sativa* on human colon cancer cells: the suppression of AP-1 and NF-κB transcription factors and the induction of cytoprotective genes. *Asian Pac J Cancer Prev* 2015;16:7943-57.
- Elkhayat ES, Alorainy MS, El-Ashmawy IM, Fat'hi S. Potential antidepressant constituents of *Nigella sativa* seeds. *Pharmacogn Mag* 2016;12(Suppl 1):S27-31.
- EIKhoely A, Hafez HF, Ashmawy AM, Badary O, Abdelaziz A, Mostafa A, Shouman SA. Chemopreventive and therapeutic potentials of thymoquinone in HepG2 cells: mechanistic perspectives. *J Nat Med* 2015;69:313-23.
- Elmaci I, Altinoz MA. Thymoquinone: An edible redox-active quinone for the pharmacotherapy of neurodegenerative conditions and glial brain tumors. A short review. *Biomed Pharmacother* 2016;83:635-640.
- El-Naggar T, Carretero ME, Arce C, Gómez-Serranillos MP. Methanol extract of *Nigella sativa* seed induces changes in the levels of neurotransmitter amino acids in male rat brain regions. *Pharm Biol* 2017;55:1415-1422.
- El Rabey HA, Al-Seeni MN, Bakhashwain AS. The Antidiabetic Activity of *Nigella sativa* and propolis on streptozotocin-induced dDiabetes and diabetic nephropathy in male rats. *Evid Based Complement Alternat Med* 2017;2017:5439645.
- EIrehany M, Elbawb Elsaid ME, Younis HA, Mhmoud AM. Therapeutic effect of *Nigella sativa* on patients with coronary artery disease. *AAMJ* 2012;10:12-25.
- El-Sheikh AA, Morsy MA, Hamouda AH. Protective mechanisms of thymoquinone on methotrexate-induced intestinal toxicity in rats. *Pharmacogn Mag* 2016;12(Suppl 1):S76-81.
- Elsherbiny NM, Maysarah NM, El-Sherbiny M, Al-Gayyar MM. Renal protective effects of thymoquinone against sodium nitrite-induced chronic toxicity in rats: Impact on inflammation and apoptosis. *Life Sci* 2017;180:1-8.
- Eltony SA, Elgayar SA. Histological study on effect of *Nigella sativa* on aged olfactory system of female albino rat. *Rom J Morphol Embryol* 2014;55:325-34.
- Emeka PM, Badger-Emeka LI, Eneh CM3, Khan TM. Dietary supplementation of chloroquine with *Nigella sativa* seed and oil extracts in the treatment of malaria induced in mice with plasmodium berghei. *Pharmacogn Mag* 2014;10(Suppl 2):S357-62.

- Emeka LB, Emeka PM, Khan TM. Antimicrobial activity of *Nigella sativa* L. seed oil against multi-drug resistant *Staphylococcus aureus* isolated from diabetic wounds. *Pak J Pharm Sci* 2015;28:1985-90.
- Erboga M, Kanter M, Aktas C, Sener U, Fidanol Erboga Z, Bozdemir Donmez Y, Gurel A. Thymoquinone ameliorates cadmium-induced nephrotoxicity, apoptosis, and oxidative stress in rats is based on its anti-apoptotic and anti-oxidant properties. *Biol Trace Elem Res* 2016;170:165-72.
- Erkut A, Cure MC, Kalkan Y, Balik MS, Guvercin Y, Yaprak E, Yuces S, Sehitoglu I, Cure E. Protective effects of thymoquinone and alpha-tocopherol on the sciatic nerve and femoral muscle due to lower limb ischemia-reperfusion injury. *Eur Rev Med Pharmacol Sci* 2016;20:1192-202.
- Ezirganli S, Kazancioglu HO, Ozdemir H, Inan DS, Tek M. The effects of *Nigella sativa* seed extract on bone healing in an experimental model. *J Craniofac Surg* 2016;27:1905-1909.
- Fallah Huseini H, Amini M, Mohtashami R, Ghamarchehre ME, Sadeqi Z, Kianbakht S, Fallah Huseini A. Blood pressure lowering effect of *Nigella sativa* L. seed oil in healthy volunteers: a randomized, double-blind, placebo-controlled clinical trial. *Phytother Res* 2013;27:1849-53.
- Farhangi MA, Dehghan P, Tajmiri S, Abbasi MM. The effects of *Nigella sativa* on thyroid function, serum Vascular Endothelial Growth Factor (VEGF)-1, Nesfatin-1 and anthropometric features in patients with Hashimoto's thyroiditis: a randomized controlled trial. *BMC Complement Altern Med* 2016 Nov 16;16:471.
- Farooqui Z, Ahmed F, Rizwan S, Shahid F, Khan AA, Khan F. Protective effect of *Nigella sativa* oil on cisplatin induced nephrotoxicity and oxidative damage in rat kidney. *Biomed Pharmacoth*. 2017;85:7-15.
- Farzaneh E, Nia FR, Mehrtash M, Mirmoieni FS, Jalilvand M. The effects of 8-week *Nigella sativa* supplementation and aerobic training on lipid profile and VO2 max in sedentary overweight females. *Int J Prev Med* 2014;5:210-6.
- Ganji-Harsini S, Khazaei M, Rashidi Z, Ghanbari A. Thymoquinone could increase the efficacy of tamoxifen induced apoptosis in human breast cancer cells: An *in vitro* study. *Cell J* 2016;18:245-54.
- Gelot P, Bara-Passot C, Gimenez-Arnau E, Beneton N, Maillard H, Celerier P. Bullous drug eruption with *Nigella sativa* oil. *Ann Dermatol Venerol* 2012;139:287-91.
- Gheita TA, Kenawy SA. Effectiveness of *Nigella sativa* oil in the management of rheumatoid arthritis patients: a placebo controlled study. *Phytother Res* 2012;26:1246-8.
- Ghorbanibirgani A, Khalili A, Rokhfarooz D. Comparing *Nigella sativa* oil and fish oil in treatment of vitiligo. *Iran Red Crescent Med J* 2014;16:e4515.
- Gholamzad Z, Rafatpanah H, Sadeghnia HR, Boskabady MH. Immunomodulatory and cytotoxic effects of *Nigella sativa* and thymoquinone on rat splenocytes. *Food Chem Toxicol* 2015;86:72-80.
- Gilhotra N, Dhingra D. Thymoquinone produced antianxiety-like effects in mice through modulation of GABA and NO levels. *Pharmacol Rep* 2011;63:660-9.
- Gökçe EC, Kahveci R, Gökçe A, Cemil B, Aksoy N, Sargon MF, Kısa Ü, Erdoğan B, Güvenc Y, Alagöz F, Kahveci O. Neuroprotective effects of thymoquinone against spinal cord ischemia-reperfusion injury by attenuation of inflammation, oxidative stress, and apoptosis. *J Neurosurg Spine* 2016;24:949-59.
- Gore PR, Prajapati CP, Mahajan UB, Goyal SN, Belemkar S, Ojha S, Patil CR. Protective effect of thymoquinone against cyclophosphamide-induced hemorrhagic cystitis through inhibiting DNA damage and upregulation of Nrf2 expression. *Int J Biol Sci* 2016 7;12:944-53.
- Gray JP, Burgos DZ, Yuan T, Seeram N, Rebar R, Follmer R, Heart EA. Thymoquinone, a bioactive component of *Nigella sativa*, normalizes insulin secretion from pancreatic β -cells under glucose overload via regulation of malonyl-CoA. *Am J Physiol Endocrinol Metab* 2016;310:E394-404.
- Gülmez Mİ, Okuyucu Ş, Dokuyucu R, Gökçe H. The effect of caffeic acid phenethyl ester and thymoquinone on otitis media with effusion in rats. *Int J Pediatr Otorhinolaryngol* 2017;96:94-99.
- Gülşen İ, Ak H, Kara M, Gökalp A, Akyol V, Koçak ÖF, Rağbetli MÇ. The acute effects of thymoquinone on acute peripheral nerve injury: an experimental study. *Ulus Travma Acil Cerrahi Derg* 2016;22:526-530.
- Hadi V, Kheirouri S, Alizadeh M, Khabbazi A, Hosseini H. Effects of *Nigella sativa* oil extract on inflammatory cytokine response and oxidative stress status in patients with rheumatoid arthritis: a randomized, double-blind, placebo-controlled clinical trial. *Avicenna J Phytomed* 2016;6:34-43.
- Hadzadeh MA, Rad AK, Rajaei Z, Tehranipour M, Monavar N. The preventive effect of N-butanol fraction of *Nigella sativa* on ethylene glycol-induced kidney calculi in rats. *Pharmacogn Mag* 2011;7:338-43.
- Hagag AA, AbdElal AM, Elfarag MS, Hassan SM, Elzamarany EA. Therapeutic value of black seed oil in methotrexate hepatotoxicity in Egyptian children with acute lymphoblastic leukemia. *Infect Disord Drug Targets* 2015;15:64-71.
- Hammad FT, Lubbad L. The effect of thymoquinone on the renal functions following ischemia-reperfusion injury in the rat. *Int J Physiol Pathophysiol Pharmacol* 2016;8:152-159.
- Haq SH, Nasiruddin M, Najmi A. Indigenous herbal product *Nigella sativa* proved effective as an anti-obesity therapy in metabolic syndrome. *Int J Med Res* 2011;1:173-6.
- Hariharan P, Paul-Satyaseela M, Gnanamani A. *In vitro* profiling of antimicrobial-resistant *Staphylococcus aureus* activity of thymoquinone against selected type and clinical strains. *Lett Appl Microbiol* 2016;62:283-9.
- Hashem-Dabaghian F, Agah S, Taghavi-Shirazi M, Ghobadi A. Combination of *Nigella sativa* and honey in eradication of gastric *Helicobacter pylori* infection. *Iran Red Crescent Med J* 2016;18:e23771.
- Hassan W, Noreen H, Khalil S, Hussain A, Rehman S, Sajjad S, Rahman A, da Rocha JB. Ethanolic extract of *Nigella sativa* protects Fe(II) induced lipid peroxidation in rat's brain, kidney and liver homogenates. *Pak J Pharm Sci* 2016;29:231-7.
- Hassanein KM, El-Amir YO. Protective effects of thymoquinone and avenanthramides on titanium dioxide nanoparticles induced toxicity in Sprague-Dawley rats. *Pathol Res Pract* 2017;213:13-22.
- Hassanien MF, Assiri AM, Alzohairy AM, Oraby HF. Health-promoting value and food applications of black cumin essential oil: an overview. *J Food Sci Technol* 2015;52:6136-42.
- Hebi M, Zeggwagh N, Hajj L, Bouhali BE, Eddouks M. Cardiovascular effect of *Nigella sativa* L. aqueous extract in normal rats. *Cardiovasc Hematol Disord Drug Targets* 2016;16:47-55.
- Heshmati J, Namazi N, Memarzadeh MR, Taghizadeh M, Koolahdooz F. *Nigella sativa* oil affects glucose metabolism and lipid concentrations in patients with type 2 diabetes: A randomized, double-blind, placebo-controlled trial. *Food Res Int* 2015;70:87-93.
- Heshmati J, Namazi N. Effects of black seed (*Nigella sativa*) on metabolic parameters in diabetes mellitus: a systematic review. *Complement Ther Med* 2015;23:275-82.
- Hoseini MS, Mirkarimi SA, Amini M, Mohtashami R, Kianbakht S, Fallah Hoseini H. Effects of *Nigella sativa* L. seed oil in type II diabetic Patients: A randomized, double-blind, placebo-controlled clinical trial. *J Med Plants* 2013;12:93-9.
- Hoseini MS, Mirkarimi SA, Amini M, Mohtashami R, Kianbakht S, Fallah Hoseini H. Effects of *Nigella sativa* L. seed oil in type II diabetic Patients: A randomized, double-blind, placebo-controlled clinical trial. *J Med Plants*. 2013;12:93-9.
- Hosseini S, Khajavi Rad A, Hadjzadeh MA, Mohamadian Roshan N, Havaklah S, Shafiee S. The protective effect of *Nigella sativa* against cisplatin-induced nephrotoxicity in rats. *Avicenna J Phytomed* 2016;6:44-54.
- Hosseini S, Rad AK, Bideskan AE, Soukhtanloo M, Sadeghnia H, Shafei MN, Motejjadd F, Mohebbati R, Shahraki S, Beheshti F. Thymoquinone ameliorates renal damage in unilateral ureteral obstruction in rats. *Pharmacol Rep* 2017;69:648-657.
- Hossen MJ, Yang WS, Kim D, Aravinthan A, Kim JH, Cho JY. Thymoquinone: An IRAK1 inhibitor with *in vivo* and *in vitro* anti-inflammatory activities. *Sci Rep* 2017;7:42995.
- Hosseinzadeh H, Tafaghodi M, Mosavi MJ, Taghiabadi E. Effect of aqueous and ethanolic extracts of *Nigella sativa* seeds on milk production in rats. *J Acupun Meridian Stud* 2013;6:18-23.
- Hosseinzadeh H, Parvardeh S, Masoudi A, Moghimi M, Mahboobifard F. Attenuation of morphine tolerance and dependence by thymoquinone in mice. *Avicenna J Phytomed* 2016;6:55-66.
- Hou WK, Meng LS, Zheng F, Wen YR, Zhu WH, Jiang CS, He XJ, Zhou Y, Lu SM. Methotrexate ameliorates pristane-induced arthritis by decreasing IFN- γ and IL-17A expressions. *J Zhejiang Univ Sci B* 2011;12:40-6.
- Houdkova M, Rondevaldova J, Doskokcil I, Kokoska L. Evaluation of antibacterial potential and toxicity of plant volatile compounds using new broth microdilution volatilization method and modified MTT assay. *Fitoterapia* 2017;118:56-62.
- Huseini HF, Kianbakht S, Mirshamsi MH, Zarch AB. Effectiveness of topical *Nigella sativa* seed oil in the treatment of cyclic mastalgia: A randomized, triple-blind, active, and placebo-controlled clinical trial. *Planta Med* 2016;82:285-8.
- Hussain MB, Hannan A, Absar M, Butt N. *In vitro* susceptibility of methicillin-resistant *Staphylococcus aureus* to honey. *Complement Ther Clin Pract* 2017;27:57-60.
- Ibrahim RM, Hamdan NS, Ismail M, Saini SM, Abd Rashid SN, Abd Latif L, Mahmud R. Protective effects of *Nigella sativa* on metabolic syndrome in menopausal women. *Adv Pharm Bull* 2014a;4:29-33.
- Ibrahim RM, Hamdan NS, Mahmud R, Imam MU, Saini SM, Rashid SN, Abd Ghafar SA, Latif LA, Ismail M. A randomized controlled trial on hypolipidemic effects of *Nigella Sativa* seeds powder in menopausal women. *J Transl Med* 2014;12:82.
- Ibrahim FM, Attia HN, Maklad YA, Ahmed KA, Ramadan MF. Biochemical characterization, anti-inflammatory properties and ulcerogenic traits of some cold-pressed oils in experimental animals. *Pharm Biol* 2017;55:740-748.
- Ibrahim AbdE Fattah L, Zickri MB, Aal LA, Heikal O, Osama E. The effect of thymoquinone, $\alpha 7$ receptor agonist and $\alpha 7$ receptor allosteric modulator on the cerebral cortex in experimentally induced Alzheimer's Disease in relation to MSCs activation. *Int J Stem Cells* 2016;9:230-238.
- Imam A, Ajao MS, Amin A, Abdulmajeed WI, Ibrahim A, Olajide OJ, Ajibola MI, Alli-Oluwafuyi A, Balogun WG. *Cannabis*-induced mto-cognitive dysfunction in Wistar rats: Ameliorative efficacy of *Nigella Sativa*. *Malays J Med Sci* 2016;23:17-28.
- Imani S, Wei C, Cheng J, Khan MA, Fu S, Yang L, Tania M, Zhang X, Xiao X, Zhang X, Fu J. MicroRNA-34a targets epithelial to mesenchymal transition-inducing transcription factors (EMT-TFs) and inhibits breast cancer cell migration and invasion. *Oncotarget* 2017;8:21362-21379.
- Işık H, Cevikbaş A, Güler US, Kiran B, Uresin Y, Rayaman P, Rayaman E, Gürbüz B, Büyükoztürk S. Potential adjuvant effects of *Nigella sativa* seeds to improve specific immunotherapy in allergic rhinitis patients. *Med Princ Pract* 2010;19:206-11.
- Isik F, Tunali Akbay T, Yarat A, Genc Z, Pisirciler R, Caliskan-Ak E, Cetinel S, Altintas A, Sener G. Protective effects of black cumin (*Nigella sativa*) oil on TNBS-induced experimental colitis in rats. *Dig Dis Sci* 2011;56:721-30.

- Ismail N, Ismail M, Azmi NH, Abu Bakar MF, Basri H, Abdullah MA. Modulation of hydrogen peroxide-induced oxidative stress in human neuronal cells by thymoquinone-rich fraction and thymoquinone via transcriptional regulation of antioxidant and apoptotic signaling genes. *Oxid Med Cell Longev* 2016;2016:2528935.
- Jaarin K, Foong WD, Yeoh MH, Kamarul ZY, Qodriyah HM, Azman A, Zuhair JS, Juliana AH, Kamisah Y. Mechanisms of the antihypertensive effects of *Nigella sativa* oil in L-NAME-induced hypertensive rats. *Clinics (Sao Paulo)* 2015;70:751-7.
- Jafri SH, Glass J, Shi R, Zhang S, Prince M, Kleiner-Hancock H. Thymoquinone and cisplatin as a therapeutic combination in lung cancer: *In vitro* and *in vivo*. *J Exp Clin Cancer Res* 2010;29:87.
- Jalili C, Salahshoor MR, Hoseini M, Roshankhah S, Sohrabi M, Shabani-zadeh A. Protective effect of thymoquinone against morphine injuries to kidneys of mice. *Iran J Kidney Dis* 2017;11:142-150.
- Jaswal A, Sharma M, Raghuvanshi S, Sharma S, Reshi MS, Uthra C, Shukla S. Therapeutic efficacy of *Nigella sativa* Linn. against antituberculosis drug-induced hepatic injury in Wistar rats. *J Environ Pathol Toxicol Oncol* 2016;35:59-71.
- Kaatabi H, Bamasa AO, Lebda FM, Al Elq AH, Al-Sultan AI. Favorable impact of *Nigella sativa* seeds on lipid profile in type 2 diabetic patients. *J Family Community Med* 2012;19:155-61.
- Kaatabi H, Bamasa AO, Badar A, Al-Elq A, Abou-Hozafa B, Lebda F, Al-Khadra A, Al-Almaie S. *Nigella sativa* improves glycemic control and ameliorates oxidative stress in patients with type 2 diabetes mellitus: placebo controlled participant blinded clinical trial. *PLoS One* 2015;10:e0113486.
- Kalus U, Pruss A, Bystron J, Jurecka M, Smekalova A, Lichius JJ, Kiese-wetter H. Effect of *Nigella sativa* (black seed) on subjective feeling in patients with allergic diseases. *Phytother Res* 2003;17:1209-14.
- Karaca G, Aydin O, Pehlivanli F, Altunkaya C, Uzun H, Güler O. Effectiveness of thymoquinone, zeolite, and platelet-rich plasma in model of corrosive oesophagitis induced in rats. *Ann Surg Treat Res* 2017;92:396-401.
- Khatab MM, Nagi MN. Thymoquinone supplementation attenuates hypertension and renal damage in nitric oxide deficient hypertensive rats. *Phytother Res* 2007;21:410-4.
- Kensara OA, El-Shemi AG, Mohamed AM, Refaat B, Idris S, Ahmad J. Thymoquinone subdues tumor growth and potentiates the chemopreventive effect of 5-fluorouracil on the early stages of colorectal carcinogenesis in rats. *Drug Des Devel Ther* 2016;10:2239-53.
- Keyhanmanesh R, Bagban H, Nazemiyeh H, Mirzaei Bafil V, Alipour MR, Ahmady M. The relaxant effects of different methanolic fractions of *Nigella sativa* on guinea pig tracheal chains. *Iran J Basic Med Sci* 2013;16:123-8.
- Khader M, Bresgen N, Eckl PM. *In vitro* toxicological properties of thymoquinone. *Food Chem Toxicol* 2009;47:129-33.
- Khalife R, Hodroj MH, Fakhoury R, Rizk S. Thymoquinone from *Nigella sativa* seeds promotes the antitumor activity of noncytotoxic doses of topotecan in human colorectal cancer cells *in vitro*. *Planta Med* 2016;82:312-21.
- Khan MA. Chemical composition and medicinal properties of *Nigella sativa* Linn. *Inflammopharmacology* 1999;7:15-35.
- Khazaei M, Pazhouhi M. Temozolomide-Mediated Apoptotic Death Is Improved by Thymoquinone in U87MG Cell Line. *Cancer Invest* 2017;35:225-236. Siehe auch Pazhouhi M, Sariri R, Rabzia A, Khazaei M. Thymoquinone synergistically potentiates temozolomide cytotoxicity through the inhibition of autophagy in U87MG cell line. *Iran J Basic Med Sci* 2016;19:890-898.
- Kheirouri S, Hadi V, Alizadeh M. Immunomodulatory effect of *Nigella sativa* oil on T lymphocytes in patients with rheumatoid arthritis. *Immunol Invest* 2016;45:271-83.
- Kilinc E, Dagistan Y, Kotan B, Cetinkaya A. Effects of *Nigella sativa* seeds and certain species of fungi extracts on number and activation of dural mast cells in rats. *Physiol Int* 2017;104:15-24.
- Kolahdoz M, Nasri S, Modarres SZ, Kianbakht S, Huseini HF. Effects of *Nigella sativa* L. seed oil on abnormal semen quality in infertile men: a randomized, double-blind, placebo-controlled clinical trial. *Phytotherapy* 2014;21:901-5.
- Kooshki A, Forouzan R, Rakhshani MH, Mohammadi M. Effect of Topical application of *Nigella sativa* oil and oral acetaminophen on pain in elderly with knee osteoarthritis: A crossover clinical trial. *Electron Physician* 2016;8:3193-3197.
- Korashy HM, Al-Jenoobi F, Raish M, Ahad A, Al-Mohizea AM, Alam MA, Alkharfy KM, Al-Suwayah SA. Impact of herbal medicines like *Nigella sativa*, *Trigonella foenum-graecum*, and *Ferula asafoetida*, on cytochrome P450 2C11 gene expression in rat liver. *Drug Res (Stuttg)* 2015;65:366-72.
- Koshak A, Wei L, Koshak E, Wali S, Alamoudi O, Demerdash A, Qutub M, Pushparaj PN, Heinrich M. *Nigella sativa* supplementation improves asthma control and biomarkers: A randomized, double-blind, placebo-controlled trial. *Phytother Res* 2017;31:403-409.
- Laskar AA, Khan MA, Rahmani AH, Fatima S, Younus H. Thymoquinone, an active constituent of *Nigella sativa* seeds, binds with bilirubin and protects mice from hyperbilirubinemia and cyclophosphamide-induced hepatotoxicity. *Biochimie* 2016;127:205-13.
- Laskar AA, Khan MA, Askari F, Younus H. Thymoquinone binds and activates human salivary aldehyde dehydrogenase: Potential therapy for the mitigation of aldehyde toxicity and maintenance of oral health. *Int J Biol Macromol* 2017;103:99-110.
- Latiff LA, Parhizkar S, Dollah MA, Hassan ST. Alternative supplement for enhancement of reproductive health and metabolic profile among perimenopausal women: a novel role of *Nigella sativa*. *Iran J Basic Med Sci* 2014;17:980-5.
- Lei X, Lv X, Liu M, Yang Z, Ji M, Guo X, Dong W. Thymoquinone inhibits growth and augments 5-fluorouracil-induced apoptosis in gastric cancer cells both *in vitro* and *in vivo*. *Biochem Biophys Res Commun* 2012a;417:864-8.
- Lei X, Liu M, Yang Z, Ji M, Guo X, Dong W. Thymoquinone prevents and ameliorates dextran sulfate sodium-induced colitis in mice. *Dig Dis Sci* 2012b;57:2296-303.
- Liu X, Park JH, Abd El-Aty AM, Assayed ME, Shimoda M, Shim JH. Isolation of volatiles from *Nigella sativa* seeds using microwave-assisted extraction: effect of whole extracts on canine and murine CYP1A. *Biomed Chromatogr* 2013;27:938-45.
- Liu H, Liu HY, Jiang YN, Li N. Protective effect of thymoquinone improves cardiovascular function, and attenuates oxidative stress, inflammation and apoptosis by mediating the PI3K/Akt pathway in diabetic rats. *Mol Med Res* 2016;13:2836-42.
- Luo Q, Zhu L, Ren Z, Shao Y, Xie Y, Feng Y, Li B, Chen Y. Involvement of microRNA-146a in the inflammatory response of status epilepticus rats. *CNS Neurol Disord Drug Targets* 2017;16:686-693.
- Mabrouk A, Bel Hadj Salah I, Chaieb W, Ben Cheikh H. Protective effect of thymoquinone against lead-induced hepatic toxicity in rats. *Environ Sci Pollut Res Int* 2016a;23:12206-15.
- Mabrouk A, Ben Cheikh H. Thymoquinone ameliorates lead-induced suppression of the antioxidant system in rat kidneys. *Libyan J Med* 2016b;11:31018.
- Mady RF, El-Hadidy W, Elachy S. Effect of *Nigella sativa* oil on experimental toxoplasmosis. *Parasitol Res* 2016;115:379-90.
- Magdy MA, Hanan el-A, Nabila el-M. Thymoquinone: Novel gastroprotective mechanisms. *Eur J Pharmacol* 2012;697:126-31.
- Mahdavi R, Namazi N, Alizadeh M, Farajnia S. *Nigella sativa* oil with a calorie-restricted diet can improve biomarkers of systemic inflammation in obese women: A randomized double-blind, placebo-controlled clinical trial. *J Clin Lipidol* 2016;10:1203-11.
- Mahmoud MA, Aminou HA, Hashem HA. Are the fatty acids responsible for the higher effect of oil and alcoholic extract of *Nigella sativa* over its aqueous extract on *Trichomonas vaginalis* trophozoites? *J Parasit Dis* 2016;40:22-31. Aminou HA, Alam-Eldin YH, Hashem HA. Effect of *Nigella sativa* alcoholic extract and oil, as well as *Phaseolus vulgaris* (kidney bean) lectin on the ultrastructure of *Trichomonas vaginalis* trophozoites. *J Parasit Dis* 2016;40:707-13.
- Mahmud HA, Seo H, Kim S, Islam MI, Nam KW, Cho HD, Song HY. Thymoquinone (TQ) inhibits the replication of intracellular *Mycobacterium tuberculosis* in macrophages and modulates nitric oxide production. *BMC Complement Altern Med* 2017;17:279.
- Mahmoudvand H, Tavakoli R, Shariffar F, Minaie K, Ezatpour B, Jahanbakht S, Sharifi I. Leishmanicidal and cytotoxic activities of *Nigella sativa* and its active principle, thymoquinone. *Pharm Biol* 2015;53:1052-7.
- Majdalawieh AF, Fayyad MW. Recent advances on the anti-cancer properties of *Nigella sativa*, a widely used food additive. *J Ayurveda Integr Med* 2016;7:173-180.
- Majdalawieh AF, Fayyad MW. Immunomodulatory and anti-inflammatory action of *Nigella sativa* and thymoquinone: A comprehensive review. *Int Immunopharmacol* 2015;28:295-304.
- Majdalawieh AF, Fayyad MW, Nasrallah GK. Anti-cancer properties and mechanisms of action of thymoquinone, the major active ingredient of *Nigella sativa*. *Crit Rev Food Sci Nutr* 2017;57:3911-3928.
- Malik T, Hasan S, Pervez S, Fatima T, Haleem DJ. *Nigella sativa* oil reduces extrapyramidal sSymptoms (EPS)-like behavior in haloperidol-treated rats. *Neurochem Res* 2016;41:3386-3398.
- Manjegowda SB, Rajagopal HM, Dharmesh SM. Polysaccharide of black cumin (*Nigella sativa*) modulates molecular signaling cascade of gastric ulcer pathogenesis. *Int J Biol Macromol*. 2017;101:823-836.
- Mansour SW, Sangi S, Harsha S, Khaleel MA, Ibrahim AR. Sensibility of male rats fertility against olive oil, *Nigella sativa* oil and pomegranate extract. *Asian Pac J Trop Biomed* 2013;3:563-8.
- Maucher IV, Rühl M, Kretschmer SB, Hofmann B, Kühn B, Fettel J, Vogel A, Flügel KT, Manolikakes G, Hellmuth N, Häfner AK, Golghalyani V, Ball AK, Piesche M, Matrone C, Geisslinger G, Parnham MJ, Karas M, Steinhilber D, Roos J, Maier TJ. Michael acceptor containing drugs are a novel class of 5-lipoxygenase inhibitor targeting the surface cysteines C416 and C418. *Biochem Pharmacol* 2017;125:55-74.
- Meral I, Esrefoglu M, Dar KA, Ustunova S, Aydin MS, Demirtas M, Arifoglu Y. Effects of *Nigella sativa* on apoptosis and GABA receptor density in cerebral cortical and hippocampal neurons in pentylenetetrazol induced kindling in rats. *Biotech Histochem* 2016;91:493-500.
- Moeen-ud-din H, Murad S, Fatima A. Placebo controlled study on comparison of effects of *Nigella sativa* and nicotinic acid along with low fat diet and physical exercise in LDL cholesterol and HDL cholesterol. *P J M H S* 2014;8:306-9.
- Mohtashami R, Amini M, Fallah Huseini H, Ghamarchehre M, Sadeqhi Z, Hajjagae R, et al. Blood glucose lowering effects of *Nigella Sativa* L. seeds oil in healthy volunteers: A randomized, double-blind, placebo-controlled clinical trial. *J Med Plants* 2011;10:90-4.
- Mohajeri D, Kaffashi Elahi R. Effects of *Nigella sativa* on heat-induced testis damage in mouse. *Bratisl Lek Listy* 2015;116:264-9.
- Mohamed A, Waris HM, Ramadan H, Quereshi M, Kalra J. Amelioration of chronic relapsing experimental autoimmune encephalomyelitis (cr-ee) using thymoquinone - biomed 2009. *Biomed Sci Instrum* 2009;45:274-9.
- Mohtashami R, Huseini HF, Heydari M, Amini M, Sadeqhi Z, Ghaznavi H, Mehrzadi S. Efficacy and safety of honey based formulation of *Nigella sativa* seed oil in functional dyspepsia: A double blind randomized controlled clinical trial. *J Ethnopharmacol* 2015;175:147-52.
- Mohtashami A, Entezari MH. Effects of *Nigella sativa* supplementation on blood parameters and anthropometric indices in adults: A systematic review on clinical trials. *J Res Med Sci* 2016a;21:3.

- Mohtashami A, Mahaki B, Azadbakht L, Entezari MH. Effects of bread with *Nigella sativa* on lipid profiles, apolipoproteins and inflammatory factor in metabolic syndrome patients. *Clin Nutr Res* 2016b;5:89-95.
- Mousa HFM, Abd-El-Fatah NK, Darwish OA, Shehata SF, Fadel SH. Effect of *Nigella sativa* seed administration on prevention of febrile neutropenia during chemotherapy among children with brain tumors. *Childs Nerv Syst* 2017;33:793-800.
- Muneera KE, Majeed A, Naveed AK. Comparative evaluation of *Nigella sativa* (Kalonji) and simvastatin for the treatment of hyperlipidemia and in the induction of hepatotoxicity. *Pak J Pharm Sci* 2015;28:493-8.
- Muralidharan-Chari V, Kim J, Abuawad A, Naeem M, Cui H, Mousa SA. Thymoquinone modulates blood coagulation *in vitro* via its effects on inflammatory and coagulation pathways. *Int J Mol Sci* 2016;17:474.
- Najmi A, Haque S, Khan R, Nasiruddin M. Therapeutic effect of *Nigella Sativa* oil on different clinical and biochemical parameters in metabolic syndrome. *Int J Pharm* 2007;5:13.
- Najmi A, Nasiruddin M, Khan RA, Haque SF. Effect of *Nigella sativa* oil on various clinical and biochemical parameters of insulin resistance syndrome. *Int J Diabetes Dev Ctries* 2008;28:11-4.
- Najmi A, Nasiruddin M, Khan RA, Haque SF. Therapeutic effect of *Nigella sativa* in patients of poor glycemic control. *Asian J Pharm Clin Res* 2012;5:224-8.
- Najmi A, Nasiruddin M, Khan RA, Haque SF. Indigenous herbal product *Nigella sativa* proved effective as an antihypertensive in metabolic syndrome. *Asian J Pharm Clin Res* 2013;6:6-4.
- Namazi N, Mahdavi R, Alizadeh M, Farajnia S. Oxidative stress responses to *Nigella sativa* oil concurrent with a low-calorie diet in obese women: A randomized, double-blind controlled Clinical trial. *Phytother Res* 2015;29:1722-8.
- Niazmand S, Fereidouni E, Mahmoudabady M, Mousavi SM. Endothelium-independent vasorelaxant effects of hydroalcoholic extract from *Nigella sativa* seed in rat aorta: the roles of Ca²⁺ and K⁺ channels. *Biomed Res Int* 2014;2014:247054.
- Nikakhlagh S, Rahim F, Aryani FH, Syahpoush A, Brougerdnya MG, Saki N. Herbal treatment of allergic rhinitis: the use of *Nigella sativa*. *Am J Otolaryngol* 2011;32:402-7.
- Noor NA, Fahmy HM, Mohammed FF, Elsayed AA, Radwan NM. *Nigella sativa* ameliorates inflammation and demyelination in the experimental autoimmune encephalomyelitis-induced Wistar rats. *Int J Clin Exp Pathol* 2015;8:6269-86.
- Normandin K, Lavallée JF, Futter M, Beautrait A, Duchaine J, Guiral S, Marinier A, Archambault V. Identification of polo-like kinase 1 interaction inhibitors using a novel cell-based assay. *Sci Rep* 2016;5:37581.
- Norouzi F, Abareshi A, Asgharzadeh F, Beheshti F, Hosseini M, Farzadnia M, Khazaei M. The effect of *Nigella sativa* on inflammation-induced myocardial fibrosis in male rats. *Res Pharm Sci* 2017;12:74-81.
- Nosbaum A, Ben Said B, Halpern SJ, Nicolas JF, Bérard F. Systemic allergic contact dermatitis to black cumin essential oil expressing as generalized erythema multiforme. *Eur J Dermatol*. 2011 May-Jun;21(3):447-8.
- Ong YS, Saiful Yazan L, Ng WK, Noordin MM, Sapuan S, Foo JB, Tor YS. Acute and subacute toxicity profiles of thymoquinone-loaded nanostructured lipid carrier in BALB/c mice. *Int J Nanomedicine* 2016;11:5905-5915.
- Onifadee AA, Jewel AP, Okesina AB. Virologic and immunologic outcome of treatment of HIV infection with a herbal concoction, α -Zam, among clients seeking herbal remedy in Nigeria. *Afr J Tradit Complement Altern Med* 2011;8:37-44.
- Ogurlu M, Celebi Erdivanli O, Tumkaya L, Ozgur A, Ozergin Coskun Z, Terzi S, Demirci M, Dursun E. The therapeutic effect of thymoquinone on acoustic trauma-induced hearing loss in rats. *Eur Arch Otorhinolaryngol* 2017;274:743-749.
- Okeola VO, Adaramoye OA, Nneji CM, Falade CO, Farombi EO, Ademowo OG. Antimalarial and antioxidant activities of methanolic extract of *Nigella sativa* seeds (black cumin) in mice infected with *Plasmodium yoelii nigeriensis*. *Parasitol Res* 2011;108:1507-12.
- Orhon ZN, Uzal C, Kanter M, Erbogga M, Demiroglu M. Protective effects of *Nigella sativa* on gamma radiation-induced jejunal mucosal damage in rats. *Pathol Res Pract* 2016;212:437-43.
- Oyero OG, Toyama M, Mitsuhiro N, Onifade AA, Hidaka A, Okamoto M, Baba M. Selective inhibition of hepatitis C virus replication by alpha-Zam, a *Nigella sativa* seed formulation. *Afr J Tradit Complement Altern Med* 2016;13:144-148.
- Oysu C, Tosun A, Yilmaz HB, Sahin-Yilmaz A, Korkmaz D, Karaaslan A. Topical *Nigella Sativa* for nasal symptoms in elderly. *Auris Nasus Larynx* 2014;41:269-72.
- Ozer EK, Goktas MT, Tokar A, Pehlivan S, Bariskaner H, Ugurluoglu C, Iskit AB. Thymoquinone protects against the sepsis induced mortality, mesenteric hypoperfusion, aortic dysfunction and multiple organ damage in rats. *Pharmacol Rep* 2017;69:683-690.
- Pang J, Shen N, Yan F, Zhao N, Dou L, Wu LC, Seiler CL, Yu L, Yang K, Bachanova V, Weaver E, Tretyakova NY, Liu S. Thymoquinone exerts potent growth-suppressive activity on leukemia through DNA hypermethylation reversal in leukemia cells. *Oncotarget* 2017;8:34453-34467.
- Parand R, Yousofvand N, Ghorbani R. The enhancing effects of alcoholic extract of *Nigella sativa* seed on fertility potential, plasma gonadotropins and testosterone in male rats. *Iran J Reprod Med* 2012;10:355-62.
- Park EJ, Chauhan AK, Min KJ, Park DC, Kwon TK. Thymoquinone induces apoptosis through downregulation of c-FLIP and Bcl-2 in renal carcinoma Caki cells. *Oncol Rep* 2016;36:2261-7.
- Parhizkar S, Latiff LA, Parsa A. Effect of *Nigella sativa* on reproductive system in experimental menopause rat model. *Avicenna J Phytomed* 2016;6:95-103.
- Pei X, Li X, Chen H, Han Y, Fan Y. Thymoquinone inhibits angiotensin II-induced proliferation and migration of vascular smooth muscle cells through the AMPK/PPAR γ /PGC-1 α pathway. *DNA Cell Biol* 2016;35:426-33.
- Pejman L, Omrani H, Mirzamohammadi Z, Keyhanmanesh R. Thymoquinone, the main constituent of *Nigella sativa*, affects adenosine receptors in asthmatic guinea pigs. *Iran J Basic Med Sci* 2014;17:1012-9.
- Perveen T, Haider S, Zuberi NA, Saleem S, Sadaf S, Batool Z. Increased 5-HT levels following repeated administration of *Nigella sativa* L. (Black Seed) oil produce antidepressant effects in rats. *Sci Pharm* 2013;82:161-70.
- Pourgholamhossein F, Shariffar F, Rasooli R, Pourgholi L, Nakhaijpour F, Samareh-Fekri H, Iranpour M, Mandegary A. Thymoquinone effectively alleviates lung fibrosis induced by paraquat herbicide through down-regulation of pro-fibrotic genes and inhibition of oxidative stress. *Environ Toxicol Pharmacol* 2016;45:340-5.
- Qidwai W, Hamza HB, Qureshi R, Gilani A. Effectiveness, safety, and tolerability of powdered *Nigella sativa* (kalonji) seed in capsules on serum lipid levels, blood sugar, blood pressure, and body weight in adults: results of a randomized, double-blind controlled trial. *J Altern Complement Med* 2009;15:639-44.
- Rafati S, Niakan M, Naseri M. Anti-microbial effect of *Nigella sativa* seed extract against staphylococcal skin infection. *Med J Islam Repub Iran* 2014;28:42.
- Rahman M, Yang DK, Kim GB, Lee SJ, Kim SJ. *Nigella sativa* seed extract attenuates the fatigue induced by exhaustive swimming in rats. *Biomed Rep* 2017;6:468-474.
- Randhawa MA, Alenazy AK, Alrowaili MG, Basha J. An active principle of *Nigella sativa* L., thymoquinone, showing significant antimicrobial activity against anaerobic bacteria. *J Intercult Ethnopharmacol* 2016;6:97-101.
- Relles D, Chipitsyna GI, Gong Q, Yeo CJ, Arafat HA. Thymoquinone promotes pancreatic cancer cell death and reduction of tumor size through combined inhibition of histone deacetylation and induction of histone acetylation. *Adv Prev Med*. 2016;2016:1407840.
- Rizk FH, Ibrahim MAA, Abd-Elsalam MM, Soliman NA, Abd-Elsalam SM. Gastroprotective effects of montelukast and *Nigella sativa* oil against corticosteroid-induced gastric damage: they are much more than antiasthmatic drugs. *Can J Physiol Pharmacol* 2017;95:714-20.
- Rushmi ZT, Akter N, Mow RJ, Afroz M, Kazi M, de Matas M, Rahman M, Shariar MH. The impact of formulation attributes and process parameters on black seed oil loaded liposomes and their performance in animal models of analgesia. *Saudi Pharm J* 2017;25:404-412.
- Riyaz A, Nazir S, Khushfar M, Mishra A, Jahan Y, Ahmad A. Effect of *Nigella sativa* L. seed extract on cisplatin-induced delay in gastric emptying in Sprague-Dawley rats. *Nat Prod Res* 2017;31:588-592.
- Sabzghabae AM, Dianatkah M, Sarrafzadegan N, Asgary S, Ghannadi A. Clinical evaluation of *Nigella sativa* seeds for the treatment of hyperlipidemia: a randomized, placebo controlled clinical trial. *Med Arch* 2012;66:198-200.
- Sahebkar A, Soranna D, Liu X, Thomopoulos C, Simental-Mendia LE, Derosa G, Maffioli P, Parati G. A systematic review and meta-analysis of randomized controlled trials investigating the effects of supplementation with *Nigella sativa* (black seed) on blood pressure. *J Hypertens* 2016a;34:2127-35.
- Sahebkar A, Beccuti G, Simental-Mendia LE, Nobili V, Bo S. *Nigella sativa* (black seed) effects on plasma lipid concentrations in humans: A systematic review and meta-analysis of randomized placebo-controlled trials. *Pharmacol Res* 2016b;106:37-50.
- Salarinia R, Rakhshandeh H, Oliaee D, Gul Ghasemi S, Ghorbani A. Safety evaluation of Phytovagex, a pessary formulation of *Nigella sativa*, on pregnant rats. *Avicenna J Phytomed* 2016;6:117-23.
- Salem ML, Hossain MS. Protective effect of black seed oil from *Nigella sativa* against murine cytomegalovirus infection. *Int J Immunopharmacol* 2000;22:729-40.
- Salem EM, Yar T, Bamasa AO, Al-Quorain A, Yasawy MI, Alsulaiman RM, Randhawa MA. Comparative study of *Nigella Sativa* and triple therapy in eradication of *Helicobacter Pylori* in patients with non-ulcer dyspepsia. *Saudi J Gastroenterol* 2010;16:207-14.
- Salem NA, Mahmoud OM1, Al Badawi MH, Gab-Alla AA. Role of *Nigella sativa* seed oil on corneal injury induced by formaldehyde in adult male albino rats. *Folia Morphol (Warsz)* 2016;75:518-526.
- Salem AM, Bamasa AO1, Qutub HO, Gupta RK, Badar A, Elnour A, Afzal MN. Effect of *Nigella sativa* supplementation on lung function and inflammatory mediators in partly controlled asthma: a randomized controlled trial. *Ann Saudi Med* 2017;37:64-71.
- Salimzadeh A, Ghourchian A, Chooapani R, Hajimehdipoor H, Kamalinejad M, Abolhasani M. Effect of an orally formulated processed black cumin, from Iranian traditional medicine pharmacopoeia, in relieving symptoms of knee osteoarthritis: A prospective, randomized, double-blind and placebo-controlled clinical trial. *Int J Rheum Dis* 2017;20:691-701.
- Sangi S, Ahmed SP, Channa MA, Ashfaq M, Mastoi SM. A new and novel treatment of opioid dependence: *Nigella sativa* 500 mg. *J Ayub Med Coll Abbottabad* 2008;20:118-24.
- Sangi SM. Potential therapeutic agents for the treatment of fatty degeneration of liver and atheromatous plaques: An experimental study in rats. *Pharmacogn Mag* 2016;12(Suppl 4):S414-S423.
- Sapmaz HI, Sarsilmaz M, Gödekmerdan A, Ügetürk M, Taş U, Köse E. Effects of formaldehyde inhalation on humoral immunity and protective effect of *Nigella sativa* oil: An experimental study. *Toxicol Ind Health* 2016;32:1564-9.

- Sapmaz E, Sapmaz HI, Vardi N3, Tas U, Sarsilmaz M, Toplu Y, Arici A, Uysal M. Harmful effects of formaldehyde and possible protective effect of *Nigella sativa* on the trachea of rats. *Niger J Clin Pract* 2017;20:523-529.
- Sarman H, Bayram R, Benek SB. Anticancer drugs with chemotherapeutic interactions with thymoquinone in osteosarcoma cells. *Eur Rev Med Pharmacol Sci* 2016;20:1263-70.
- Shaarani S, Hamid SS, Mohd Kaus NH. The influence of puronic F68 and F127 nanocarrier on physicochemical properties, *In vitro* release, and antiproliferative activity of thymoquinone drug. *Pharmacognosy Res* 2017;9:12-20.
- Shah AS, Khan GM, Badshah A, Shah SU, Shah KU, Mirza SA, Shah KU, Khan KA. *Nigella sativa* provides protection against metabolic syndrome. *Afr J Biotechnol* 2012;11:10919-10925.
- Shahid F, Farooqui Z, Rizwan S, Abidi S, Parwez I, Khan F. Oral administration of *Nigella sativa* oil ameliorates the effect of cisplatin on brush border membrane enzymes, carbohydrate metabolism and antioxidant system in rat intestine. *Exp Toxicol Pathol* 2017;69:299-306.
- Shahroudi MJ, Mehri S, Hosseinzadeh H. Anti-aging effect of *Nigella sativa* fixed oil on D-galactose-induced aging in mice. *J Pharmacopuncture* 2017;20:29-35.
- Shao Y, Feng Y, Xie Y, Luo Q, Chen L, Li B, Chen Y. Protective effects of thymoquinone against convulsant activity induced by lithium-pilocarpine in a model of status epilepticus. *Neurochem Res* 2016;41:3399-3406.
- Shao YY, Li B, Huang YM, Luo Q, Xie YM, Chen YH. Thymoquinone attenuates brain injury via an anti-oxidative pathway in a status epilepticus rat model. *Transl Neurosci* 2017;8:9-14.
- Shawki M, El Wakeel L, Shatla R, El-Saeed G, Ibrahim S, Badary O. The clinical outcome of adjuvant therapy with black seed oil on intractable paediatric seizures: a pilot study. *Epileptic Disord* 2013;15:295-301.
- Shawky H, Maghraby AS, Solliman Mel-D, El-Mokadem MT, Sherif MM, Arafa A, Bahgat MM. Expression, immunogenicity and diagnostic value of envelope proteins from an Egyptian hepatitis C virus isolate. *Arch Virol* 2015;160:945-58.
- Sheikhabaei F, Khazaei M, Rabzia A, Mansouri K, Ghanbari A. Protective effects of thymoquinone against methotrexate-induced germ cell apoptosis in male mice. *Int J Fertil Steril* 2016;9:541-7.
- Sium M, Kareru P, Keriko J, Girmay B, Medhanie G, Debretson S. Profile of trace elements in selected medicinal plants used for the treatment of diabetes in Eritrea. *ScientificWorldJournal* 2016;2016:2752836.
- Siveen KS, Mustafa N, Li F, Kannaiyan R, Ahn KS, Kumar AP, Chng WJ, Sethi G. Thymoquinone overcomes chemoresistance and enhances the anticancer effects of bortezomib through abrogation of NF- κ B regulated gene products in multiple myeloma xenograft mouse model. *Oncotarget* 2014;5:634-48.
- Sobhi W, Stevigny C, Duez P, Calderon BB, Atmani D, Benboubeta M. Effect of lipid extracts of *Nigella sativa* L. seeds on the liver ATP reduction and alpha-glucosidase inhibition. *Pak J Pharm Sci* 2016;29:111-7.
- Soleimannejad K, Rahmani A, Hatefi M, Khataminia M, Hafezi Ahmadi MR, Asadollahi K. Effects of *Nigella sativa* extract on markers of cerebral angiogenesis after global ischemia of brain in rats. *J Stroke Cerebrovasc Dis* 2017;26:1514-1520.
- Somboonwong J, Yusuksawad M, Keelawat S, Thongruay S, Pomsuk U. Minimization of the risk of diabetic microangiopathy in rats by *Nigella sativa*. *Pharmacogn Mag* 2016;12(Suppl 2):S175-80.
- Steinmann A, Schätzle M, Agathos M, Breit R. Allergic contact dermatitis from black cummin (*Nigella sativa*) oil after topical use. *Contact Dermatitis* 1997;36:268-9.
- Su X, Ren Y, Yu N, Kong L, Kang J. Thymoquinone inhibits inflammation, neoangiogenesis and vascular remodeling in asthma mice. *Int Immunopharmacol* 2016;38:70-80.
- Suddek GM. Protective role of thymoquinone against liver damage induced by tamoxifen in female rats. *Can J Physiol Pharmacol* 2014;92:640-4.
- Sultana S, Zulkifle M, Ansari AH, Shahnawaz. Efficacy of local application of an Unani formulation in acne vulgaris. *Anc Sci Life* 2015;35:124-8.
- Taha MM, Sheikh BY, Salim LZ, Mohan S, Khan A, Kamalidehghan B, Ahmadipour F, Abdelwahab SI. Thymoquinone induces apoptosis and increase ROS in ovarian cancer cell line. *Cell Mol Biol (Noisy-le-grand)* 2016;62:97-101.
- Tahvilzadeh M, Hajimahmoodi M, Toliyat T, Karimi M, Rahimi R. An evidence-based approach to medicinal plants for the treatment of sperm abnormalities in traditional Persian medicine. *Andrologia* 2016;48:860-79.
- Talib WH, Abukhader MM. Combinatorial Effects of Thymoquinone on the Anticancer Activity and Hepatotoxicity of the Prodrug CB 1954. *Sci Pharm*. 2013 Apr-Jun;81(2):519-30.
- Tang D, Chen QB, Xin XL, Aisa HA. Anti-diabetic effect of three new norditerpenoid alkaloids *in vitro* and potential mechanism via PI3K/Akt signaling pathway. *Biomed Pharmacother* 2017;87:145-152.
- Tennekoon KH, Jeevathayaparan S, Kurukulasooriya AP, Karunanayake EH. Possible hepatotoxicity of *Nigella sativa* seeds and *Dregea volubilis* leaves. *J Ethnopharmacol* 1991;31:283-9.
- Thummuri D, Jeengar MK, Shrivastava S, Nemani H, Ramavat RN, Chaudhari P, Naidu VG. Thymoquinone prevents RANKL-induced osteoclastogenesis activation and osteolysis in an in vivo model of inflammation by suppressing NF- κ B and MAPK Signalling. *Pharmacol Res* 2015;99:63-73.
- Traibi I, Achour S, Souirti Z, El Midaoui A, Messouak O, Belahsen F. Neurologic toxicity of *Nigella*. *Rev Neurol (Paris)* 2013;169:911-2.
- Turkey MJ. Therapeutic potential of *Nigella sativa* oil against cyclophosphamide-induced DNA damage and hepatotoxicity. *Nutr Cancer* 2017;69:498-504.
- Ugur AR, Dagi HT, Ozturk B, Tekin G, Findik D. Assessment of *In vitro* Antibacterial Activity and Cytotoxicity Effect of *Nigella sativa* Oil. *Pharmacogn Mag* 2016;12(Suppl 4):S471-S474.
- Ullah R, Rehman A, Zafeer MF, Rehman L, Khan YA, Khan MA, Khan SN, Khan AU, Abidi SM. Anthelmintic potential of thymoquinone and curcumin on *Fasciola gigantica*. *PLoS One* 2017;12:e0171267.
- Vahdati-Mashhadian N, Rakhshandeh H, Omidi A. An investigation on LD50 and subacute hepatic toxicity of *Nigella sativa* seed extracts in mice. *Pharmazie* 2005;60:544-7.
- Vaillancourt F, Silva P, Shi Q, Fahmi H, Fernandes JC, Benderdour M. Elucidation of molecular mechanisms underlying the protective effects of thymoquinone against rheumatoid arthritis. *J Cell Biochem* 2011;112:107-17.
- Velagapudi R, Kumar A, Bhatia HS, El-Bakoush A, Lepiaz I, Fiebich BL, Olajide OA. Inhibition of neuroinflammation by thymoquinone requires activation of Nrf2/ARE signalling. *Int Immunopharmacol* 2017a;48:17-29.
- Velagapudi R, El-Bakoush A, Lepiaz I, Ogunrinade F, Olajide OA. AMPK and SIRT1 activation contribute to inhibition of neuroinflammation by thymoquinone in BV2 microglia. *Mol Cell Biochem* 2017.
- Velho-Pereira R, Kumar A, Pandey BN, Jagtap AG, Mishra KP. Radiosensitization in human breast carcinoma cells by thymoquinone: role of cell cycle and apoptosis. *Cell Biol Int* 2011;35:1025-9.
- Wilson AJ, Saskowski J, Barham W, Yull F, Khabele D. Thymoquinone enhances cisplatin-response through direct tumor effects in a syngeneic mouse model of ovarian cancer. *J Ovarian Res* 2015;8:46.
- Yang Y, Bai T, Yao YL, Zhang DQ, Wu YL, Lian LH, Nan JX. Upregulation of SIRT1-AMPK by thymoquinone in hepatic stellate cells ameliorates liver injury. *Toxicol Lett* 2016;262:80-91.
- Yoruk O, Tatar A, Keles ON, Cakir A. The value of *Nigella sativa* in the treatment of experimentally induced rhinosinusitis. *Acta Otorhinolaryngol Ital* 2017;37:32-37.
- Yousefi M, Barikbin B, Kamalinejad M, Abolhasani E, Ebadi A, Younespour S, Manouchehran M, Hejazi S. Comparison of therapeutic effect of topical *Nigella* with Betamethasone and Eucerin in hand eczema. *J Eur Acad Dermatol Venereol* 2013;27:1498-504.
- Yu SM, Kim SJ. The thymoquinone-induced production of reactive oxygen species promotes dedifferentiation through the ERK pathway and inflammation through the p38 and PI3K pathways in rabbit articular chondrocytes. *Int J Mol Med*. 2015 Feb;35(2):325-32.
- Yuksel S, Tasdemir S, Korkmaz S. Protective effect of thymoquinone against cyclophosphamide-induced genotoxic damage in human lymphocytes. *Bratisl Lek Listy* 2017;118:208-211.
- Zaoui A, Cherrah Y, Lacaille-Dubois MA, Settaf A, Amarouch H, Hassar M. Diuretic and hypotensive effects of *Nigella sativa* in the spontaneously hypertensive rat. *Therapie* 2000;55:379-82.
- Zaoui A, Cherrah Y, Mahassini N, Alaoui K, Amarouch H, Hassar M. Acute and chronic toxicity of *Nigella sativa* fixed oil. *Phytomedicine* 2002;9:69-74.
- Zedlitz S, Kaufmann R, Boehncke WH. Allergic contact dermatitis from black cummin (*Nigella sativa*) oil-containing ointment. *Contact Dermatitis* 2002;46:188.
- Zeren S, Bayhan Z, Kocak FE, Kocak C, Akcilar R, Bayat Z, Simsek H, Duzgun SA. Gastroprotective effects of sulforaphane and thymoquinone against acetylsalicylic acid-induced gastric ulcer in rats. *J Surg Res* 2016;203:348-59.
- Zhang L, Bai Y, Yang Y. Thymoquinone chemosensitizes colon cancer cells through inhibition of NF- κ B. *Oncol Lett* 2016;12:2840-2845.
- Zhu N, Zhao X, Xiang Y, Ye S, Huang J, Hu W, Lv L, Zeng C. Thymoquinone attenuates monocrotaline-induced pulmonary artery hypertension via inhibiting pulmonary arterial remodeling in rats. *Int J Cardiol* 2016;221:587-96.