### MIMC FACT SHEET 15 (2019)

## **BLACK CUMIN**

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The information below was originally published in December 2018 in the Millhouse Integrative Newsletter, a monthly publication, primarily designed for clinic patients, highlighting useful strategies which may help prevent disease and improve health.

### THE BENEFITS OF BLACK SEED - NIGELLA SATIVA

In July, I was fortunate to be staying at the Istanbul Hilton hotel which looks out over the busyness of the Bosphorus Strait, with ferries coming and going, and weaving in and out amongst the international shipping passing between the Black Sea and the Sea of Marmara, which joins the Mediterranean. The hotel breakfast was one the best selection of foods I had experienced in my travels. Alongside the cereals section, small bowls of nuts, seeds and spices were displayed, including among them linseed, sunflower & pumpkin seeds, walnuts, pecans, hazel nuts, cinnamon and one with small black seeds, which I had not seen on a hotel breakfast menu before. A label identified it as *black* seed or *Nigella sativa*. I sprinkled a teaspoon of the black seed, with the other nuts and seeds I had chosen, on my bowl of fresh fruit laced with Turkish organic yogurt, and enjoyed a delightful starter for the day with a nutty slightly-peppery taste.

**Black seed** comes from the Ranunculaceace family, a flowering annual plant with wispy foliage, small pale flowers, and ripe fruit pods filled with seed. A native to Southern Europe,

North Africa and South West Asia, Nigella *sativa* is also known as Roman coriander, black cumin, or black onion seed (NOT black sesame) but is most commonly referred to as *Black Seed* which accurately describes its appearance. For thousands of years, Middle Eastern and Indian civilisations used *black seed as* a food and medicine to treat headache, asthma, bronchitis, rheumatism and other inflammatory diseases. The ground powder, oil and tinctures were given to relieve indigestion, vomiting, diarrhoea, and to improve menstrual dysfunction, and the oil was applied to skin as an antiseptic and anaesthetic.

In old Latin, black seed was called 'panacea,' meaning cure-all. In Arabic culture *nigella sativa* is known as the 'Habbatuk Barakah' which means the 'seed of blessing, and the Prophet Mohammed said 'it is a remedy for all diseases except death'. Black seed oil was even found in the tomb

of Tutankhamun.

Nigella sativa has been studied extensively and contains many active chemicals, predominantly the *thymoquinones*, but other alkaloids and saponin substances present also have therapeutic potential. Some like *alpha-herdrin* appear to have anti-cancer actions. The table opposite lists the commonly-known pharmaceutical actions of *Nigella sativa (NS)* which have beneficial effects against many diseases.

### Blood pressure, cholesterol & diabetes

In 2005 Iranian cardiologist Dr Farshad Dekordi, in a blinded trial with a placebo group, found that 100mg and 200mg *NS seed* extract when taken for 8 weeks in healthy subjects with mild hypertension (BP 140-160 systolic, 99-100 diastolic), produced a small but significant reduction in blood pressure. They also found that *NS seed* caused a beneficial decrease in the total cholesterol, and more importantly in the LDL fraction, which when oxidised damages the arterial wall.

In animal experiments, *NS seed* is known to exert a protective effect in diabetes by preserving pancreas beta-cell function, decreasing insulin resistance and inhibiting the production of

# Nigella sativa's known pharmaceutical actions include:

Analgesic (Pain-Killing)

Anti-Bacterial (infection)

Anti-Inflammatory (for any inflammation)

- Tumour Necrosis Factor Alpha Inhibitor
- Leukotriene Antagonist

Anti-Ulcer (Stomach, inhibits Helicobacter pylori) Antispasmodic (Anti-Cholinergic –especially

calms gut smooth muscle)

Anti-Fungal (infection)

Ant-Hypertensive (Lowering BP)

Antihistamine action (Allergy)

Antioxidant

Antiviral (infection)

Bronchodilator (Asthma)

Antidiabetic

- Gluconeogenesis Inhibitor
- Insulin Sensitizing

Hepato-protective (Liver Protecting)

Interferon Inducer (infection)

Reno-protective (Kidney Protecting)

glucose in the liver. In 2009, a human trial<sup>ii</sup> by Faisal University's Dr Abdullah Bambosa, with 94 non-insulin dependent diabetics who were already on antidiabetic medication, showed that taking at least 2gm *NS seed powder* daily <u>significantly lowered blood glucose</u> and Hba1c readings. Later a 2017 Indian study<sup>iii</sup> with similar diabetic patients on medication, who chewed 2gm seed daily, also demonstrated <u>improved glucose control</u> with lower HBa1c and decreased LDL cholesterol.

### Asthma, rheumatoid & inflammatory disease

I have already mentioned *NS seed* was traditionally used to ameliorate the symptoms of lung disease. More recently animal studies have demonstrated that *NS seed* has bronchodilator, antihistamine and anti-inflammatory action. In 2015 Dr <u>Abdulrahman Koshak</u> iv and colleagues from King Abdul-Aziz University studied 80 medicated asthma patients, half of whom were given *NS seed oil* 500mg twice daily for 4 weeks of therapy. When the two groups were compared, the *NS oil* patients showed a significant improvement in lung function and their raised eosinophil allergic cell count normalised downwards.

Rheumatoid arthritis (RA) causes joint inflammation and is one of the autoimmune diseases that now afflict 1 in 5 persons. In 2012 Egyptian researchers gave a placebo for 4 weeks followed by 4 weeks of NS seed oil 500mg twice daily to 40 RA patients. At the end of this study there was a <u>marked improvement</u> in the disease activity with less

swollen joints and morning stiffness. A later blinded study<sup>vi</sup> demonstrated a significant <u>increase in the blood anti-inflammatory marker</u> IL-10, caused a slight fall in the pro-inflammatory cytokine TNF-alpha, and importantly lowered the markers for destructive oxidative stress.

### Black Seed as food

Black Seed has a strong aroma and taste that combines flavours of onion, oregano and black pepper. Often used in Indian/Middle Eastern cuisine.

- Curries, lentils & vegetable dishes
- Stir-fries
- In pastries and breads
- As garnish and to add crunch in salads.

You can buy Nigella Sativa seed from:

Rattan Spice Mart at Bishop Dunn Place

Ceres Organics at <a href="https://www.ceres.co.nz/about-organics">https://www.ceres.co.nz/about-organics</a>

### Black seed as medicine

Black seed can be chewed, taken as ground powder or organic cold pressed oil. It can also be incorporated into gels and creams for external use.

Before purchase ensure that the oil is from a reputable source and check the expiry date. Keep in the fridge after opening. Black seed medicinal products can be purchased from health food shops and online in NZ at <a href="https://www.healthpost.co.nz">https://www.healthpost.co.nz</a>

### Cancer

For centuries Nigella sativa has been used as a folk remedy against cancer. Recent research has demonstrated its ability to inhibit and cause cell death (apoptosis) against many cancer cell lines grown in the laboratory. Black seed has a profound anti-inflammatory action and antioxidant effect which may impede tumour growth. As yet, there are no published studies where Nigella sativa has been used as a complementary therapy with conventional cancer treatment. Black seed is not a miracle cure. The human body's ability to heal is the real miracle. However Nigella sativa is able to positively influence the outcome of many disease processes and this effect is magnified when combined with a whole plantbased diet enriched with spices like turmeric (February '15 News). Black seed is cheap and easily obtainable. Add it to your food and use it as a complementary medicine if you suffer from any inflammatory disease.

(copies of references can be requested, and are accessible in many cases as hyperlinks)

<sup>&</sup>lt;sup>i</sup> F Dehkordi et al Fundamental & Clinical Pharmacology 22 (2008) 447-452

ii A Bambosa et al Indian L Physiol Pharmacology 2010 54 (4) 3434-354

S Shaafi et al International Journal of Medical Science 4 (3) 37-38

<sup>&</sup>lt;sup>iv</sup> A Koshak et al Saudi Paharmceutical Journal 25 (2017) 1130 - 1136

<sup>&</sup>lt;sup>v</sup> T Cheiti et al Phytotherapy Res 2012 26(8) 1246-8

vi V Hadi et al Avicenna Journal of phytomedcine 2016 6 (1) 34-43