***   **   *
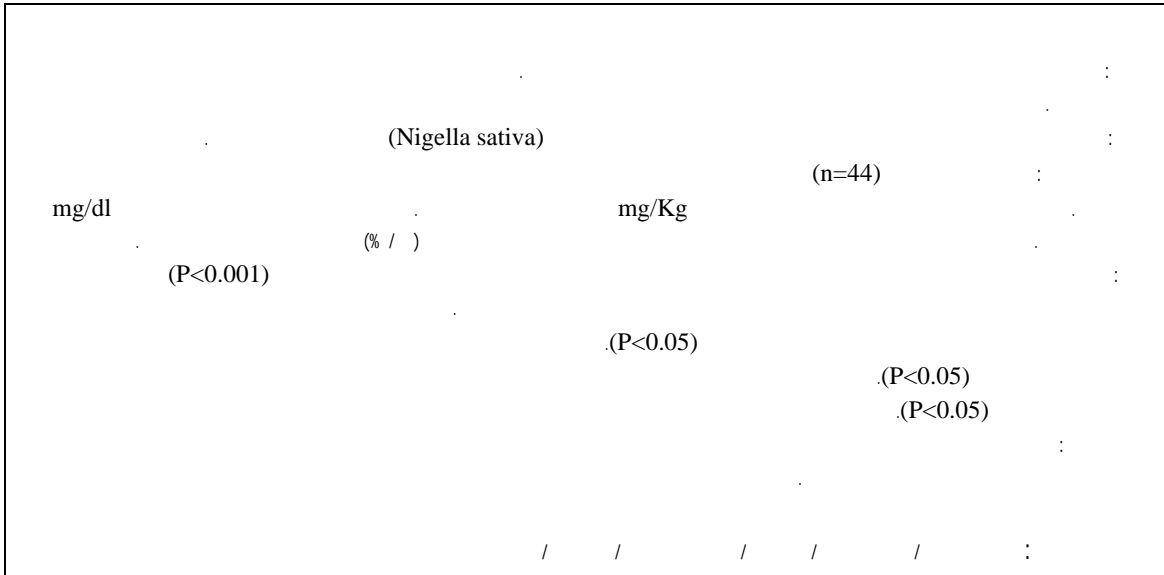
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.   (Nigella sativa)   :

                                                                (n=44)   :

mg/dl   .   mg/Kg   .

        .   (% /)   .

    (P<0.001)   :

                                    .

                                    .(P<0.05)

                                                        .(P<0.05)

                                                          .(P<0.05)

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LDL

:

mehjour@yahoo.com

mg/dl .( ) HDL

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(.( )

(S TZ: Streptozotocin)

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STZ

mg/dl . (Nigella Sativa)

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. .

(n=44) Wistar

( ) ( )

. ( ) Spectronic 20 °C .

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. Mean±S.E.M.

( )

repeated measure ANOVA /

student's paired t-test .

One-way .

. Tukey's Post-hoc test ANOVA

P<0.05

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(P<0.01)

/ / /

(P<0.001)

.(   ) (p<0.01)

p<0.05)

.(p<0.05)   (p<0.01

(p<0.05)

(   )

(P<0.001)

.(p<0.05)

(p<0.01)

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	Body weight (g)			Serum GLUCOSE (mg/dl)		
	Week 0	Week 4	Week 8	Week 0	Week 4	Week 8
	295.2 ± 5.1	309.4 ± 6.2	323.1 ± 6.9	131.5 ± 13.05	126.7 ± 11.08	123.4 ± 9.7
+	307.8 ± 7.6	314.5 ± 9.2	320.1 ± 6.7	159.5 ± 25.2	131.2 ± 9.5	137.6 ± 7.1
	287.2 ± 6.6	234.1± 10.3*	207.1 ± 9.8**	128.9 ± 6.8	409.4 ± 8.4***	401.3± 8.4***
+	300.7 ± 7.6	259.1 ± 10.5	238.1 ± 10.6*	124.8 ± 10.1	351.8± 14.1***	359.6±20.7***

* P<0.05, ** P<0.01, *** P<0.001 (   )

NS = Nigella sativa; week 0 =

:

	Total Cholesterol (mg/dl)			Triglyceride (mg/dl)		
	Week 0	Week 4	Week 8	Week 0	Week 4	Week 8
	59.1 ± 3.9	56.4 ± 5.7	55.4 ± 4.3	101.7 ± 6.8	112.3 ± 7.3	98.9 ± 6.4
+	47.1 ± 4.9	49.2 ± 4.1	45.8 ± 4.9	80.7 ± 6.5	75.4 ± 5.6	74.9 ± 6.3
	54.8 ± 6.1	75.6 ± 5.8**	74.9 ± 6.1**	99.2 ± 6.3	122.4 ± 6.4*	124.1 ± 5.7*
+	50.2 ± 5.8	62.5 ± 5.6*	53.8 ± 4.3*	100.2 ± 7.1	109.1 ± 8.3	102.7 ± 7.1

* P<0.05, ** P<0.01 (   )

NS = Nigella sativa; week 0 =

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Survey The Hypoglycemic and Hypolipidemic Effect of Chronic Oral Administration of Nigella Sativa in Diabetic Rat

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Abstract

Introduction: There are some reports about Anti-Diabetic effect of black seed in Islamic and traditional medicine. Therefore, hypoglycemic and hypolipidemic effect of this medicinal plant was investigated.

Objective: Survey the hypoglycemic and hypolipidemic effect of chronic oral administration of Nigella Sativa in diabetic rat.

Materials and Methods: Male Wistar rats (n=44) were randomly divided into 4 groups, including control, black seed-treated control, diabetic, and black seed-treated diabetic. For induction of diabetes, Streptozotocin (STZ; 60 mg/Kg; i.p.) was used at a single dose intraperitoneal. A serum glucose level higher than 250 mg/dl was considered as diabetic state. The treatment groups received oral administration of black seed-mixed pelleted food (6.25%) for two months.

Results: The results showed there were significant increase in serum glucose level in diabetic group 4 and 8 weeks after intervention as compared with the week before periment(P<0.001), Although there were no significant difference between same groups at the same time Nigella Sativum treatment of diabetic rats did not show any significant effect. In addition. Also, triglyceride level in diabetic group increased 8 weeks after intervention in comparison with related data one week before the study (P<0.05) and there was a significant lower level of triglyceride in Nigella Sativum-treated diabetic rats (p<0.05). Furthermore, a similar high significant reduction was obtained for black seed treated-diabetic group as compared to diabetic group regarding serum cholesterol level (p<0.05).

Conclusion; The obtained results demonstrated that oral chronic administration of Nigella Sativum could significantly reduce Serum Triglyceride and Cholesterol Level in Diabetic rats and this may reduce some Diabetic complications.

Key words: Cholesterol/ Diabetes Mellitus/ Hypoglycemia/ Nigella sativa/ Rats/ Triglycerides

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