# Studying the Effects of Nigella Sativa and Honey on the Rat Immune System

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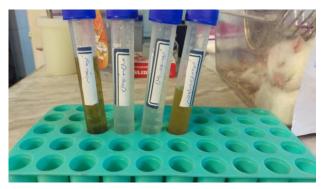
### Introduction

The immune system is a host defense system comprising many biological structures and processes. It must detect a wide variety of agents, known as pathogens. Since the advent of communication technology, as humans are exposed to diversified kinds of pollutions including air, water, soil, etc, their immune system can be threaten by causing different types of disorder and deficit. Consequently, consumption of medicine is the reasonable procedure which is really prevalent. As the drawbacks of synthetic drugs outweigh the benefits, consumption of herbal medicines are superior to them. Furthermore, some herbal medicine such as Nigella sativa is an Iranian endemic plant which has a host of various properties as much as honey.

#### **Results and Conclusion**

The aim of the present study was to investigate the effectiveness of combination of Nigella sativa and honey in reduction of inflammation and strengthen the immune system. Twenty male mice aged 45 days were divided in to the four groups. Inflammation was induced by the gavage needle. Then they were treated orally for 17 days. The first group was the negative control and was given distiled water. The second, third and fourth groups were given honey, Nigella sativa oil and combination of both respectively and equally. The reduction of Tnf- $\alpha$  in the last group is more significant versus others. In the final analysis, the

potential combination of honey and Nigella sativa oil in augmentation of the immune system is higher than others.





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## بررسی اثر سیاهدانه و عسل بر سیستم ایمنی موش

امروزه بشر برای درمان بیماری های در ارتباط با سیستم ایمنی از داروهای شیمیایی بسیاری استفاده می کند که علاوه بر تاثیرات مثبت عوارضی را هم دربر دارند که گاهی این عوارض جبران ناپذیر است. به همین دلیل تحقیقات علمی موجود در عصر حاضر رو به سوی استفاده از داروهای گیاهی و جایگزینی آن با انواع داروهای شیمیایی دارد. از آنجا که گیاهان دارویی دارای سابقه ی مصرف طولانی بوده و عوارض جانبی آن در مقایسه با انواع شیمیایی کمتر بوده و هم چنین از آنجایی که سیاهدانه از گیاهان بوده و زر تحقیقات انجام شده برآن حاکی از خواص فراوان آن اعم از: ضد سرطان ، ضدالتهاب ، ضدمیکروبی وضد تومور می باشد و همچنین تعدیل کننده ی سیستم ایمنی بدن است و عسل نیز دارای خواص آنتی باکتریال و آنتی اکسیدانی است از این رو در پژوهش صورت گرفته از عسل و سیاهدانه برای بررسی میزان تاثیر آن بر سیستم ایمنی استفاده شده است.