



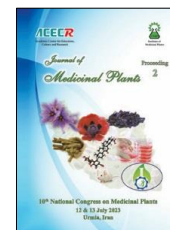
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Effects of Eucalyptus (*Eucalyptus globulus* L.), Chamomile (*Matricaria chamomilla* L.) and Garlic (*Allium sativum* L.) on immune response and serum lipids of broiler chickens

Aidin Azizpour^{1*}, **Zahra Amirajam**²

¹Department of Medicinal Plants, University of Mohaghegh Ardabili, Ardabil, Iran

²Department of Cardiology, Ardabil University of Medical Sciences, Ardabil, Iran

E-mail: Aidin_azizpour@uma.ac.ir

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ABSTRACT

The study was conducted to evaluate the effects of medicinal plants extracts on immune system and serum lipids of broilers. In this study, 240 one-day-old (Ross 308) male broiler chicks were randomly allocated to four experimental groups, each with three replications and 20 birds in each replicate. The basal diet was consumed and the plant extracts of Eucalyptus (*Eucalyptus globulus* L.), Chamomile (*Matricaria chamomilla* L.) and Garlic (*Allium sativum* L.), at 0.1% in drinking water. The birds were vaccinated against Newcastle disease (ND) via drinking water at days 10 and 21. At days 28 and 42, three birds were selected from each experimental and blood samples were taken from to determine ND titer and humoral immune titer. At day 42, cholesterol, triglyceride, LDL and HDL were measured. At 28 days, there was no significant difference among the groups in terms of ND titer and antibody titer to SRBC. The highest ND titer and antibody titer to SRBC was measured in chamomile group and eucalyptus group ($p < 0.05$), respectively on 42 days. The lowest levels of cholesterol and triglyceride were observed in garlic group ($p < 0.05$). The lowest and highest levels of LDL was determined in eucalyptus group and chamomile group ($p < 0.05$), respectively. The highest and lowest levels of HDL was observed in eucalyptus group and chamomile group ($p < 0.05$), respectively. The results of the present study showed that the use of medicinal plants improves the immune system and blood parameters.

References

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