

EFFECT OF FENUGREEK POWDER AND MACKEREL FISH POWDER ON SOME PHYSIOLOGICAL AND BIOCHEMICAL PARAMETERS OF WHITE MALE AND FEMALE RABBITS

Iman Ismail Khalil Abdullah, Ali Abdul Wahab Jassim and Wajdan Ibrahim Abbas

College of Education, University of Samarra, Samarra, Iraq.

*e-mail: marwan.walady@yahoo.com

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ABSTRACT : This research included study the effect of replacement a part of the traditional feed of rabbits with fenugreek powder (4%) and mackerel fish (8%) for the period from 11/12/2019 to 20/12/2019 was studied on some physiological and / biochemical characteristics of 30 rabbits (15 males and 15 females) After dividing them into six groups, (5) rabbits for each group. The study showed that: i)The powder results showed a significant decrease in the (follicles stimulating hormone, luteinizing and testosterone hormone), and increase the level of (prolactin hormone) in groups treated with fenugreek powder ,and groups treated with mackerel fishes powder of both males and females compared to control group, and ii) the results of liver enzymes showed no significant differences in AST level in the both male groups (the fenugreek powder treated group, mackerel fishes powder treated group), while there was a significant decrease in the females groups for both treatments. The results showed a significant increase in ALT enzyme in the female groups (treated with fenugreek leaves powder and mackerel fishes powder). In the male groups, there was a significant decrease in ALT enzyme in the group treated with mackerel fishes powder, while there was no significant change in the group treated with fenugreek powder. For the enzyme ALP, there was no significant difference in the concentration of this enzyme in the both females groups (treated with fenugreek powder and treated with powder mackerel fishes powder), while the results showed a significant increase in the male groups for the same treatments.

Key words : Fenugreek, mackerel fish, prolactin hormone, Follicle Stimulating Hormone, AST.

INTRODUCTION

All medicinal plants play an important therapeutic role for many diseases by containing chemicals that have the physiological ability to treat diseases, or to reduce the incidence of many disease (Dabea and Khalidi, 1997). The fenugreek is one of the most important plants of the earlier, and has continued to be important to the present time by containing the important food, medical and pharmaceutical ingredients, including the various classics, which are the most important because it enters in the preparation of various industrial hormones (Newall *et al*, 1998; Barnes *et al*, 2002). The fenugreek has many medical uses, including increasing the milk supply after birth through the activation of the lactic glands, regulating the unstable and unstable menstrual periods in adult girls. It is also used to treat cases of anemia, general weakness of the body, treatment of pertussis and chest diseases, and reduce the Hemorrhoids pain and the use of diosgenin in the fenugreek as a raw material in the synthesis and

preparation of the sex hormones, which interfere in the effect of medical materials used in the preparation of cortisone, and its various derivatives that benefit in the treatment of thoracic diseases, and rheumatism (Chahat, 1986).

Fish is an essential source of animal protein for a large number of the world's population. It is the main dietary source of long-chain unsaturated fatty acids (omega-3), especially EPA and DHA, which is important for mental and physical health and plays an important role in the development of the infant's brain and eyes (EFSA, 2014; Ciriminna *et al*, 2017). The importance of polyunsaturated fatty acids (omega-3) in the protective effect on the heart has also been shown to act as an anti-heart beat disorder, anticoagulant, anti-inflammatory, antihypertensive, and anti- blood lipid factor (Geleijnse *et al*, 2002). One of the most widely traded food commodities in the world is fish, which is widely distributed in most countries of the world, including the