Effect of olive leaves on lipid and liver biochemical parameters in New Zealand white X California rabbits (Oryctolagus cuniculus cuniculus)

1. INTRODUCTION

Olive leaf (OL) has been investigated as an animal diet component in pigs and ruminants. In this experimental work was studied the effect of OL addition to diets of New Zealand white X California rabbits (Oryctolagus cuniculus cuniculus) on lipid and liver biochemical parameters.

2. METHODS

Mixed sex rabbits (12 per treatment) were feeding ad libitum with three diets: common basal diet (control group); basal diet added with 5% (group 1) and 10% of OL (group 2) during the period between 52 to 73 days of age (body weight between 1700-2400g). OL were obtained from a local olive oilpress during the olive oil production period (November–December) and stored until the beginning of the animal study. Leaves were dried at 37°C for two days, milled (hammer mill, particle size < 1mm) and stored in plastic bags at room temperature until its incorporation into experimental diets. At the end of the experimental work blood samples were collected. The following biochemical parameters were assayed: total cholesterol, high density lipoprotein (HDL), low density lipoprotein (LDL), triglycerides and lipoprotein A, alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), total and direct bilirubin.

3. RESULTS

There were no significant differences in the serum levels of total cholesterol, HDL, LDL, triglycerides, lipoprotein A, ALT, AST, ALP, direct and total bilirubin, between the control and treated groups (Table I).

4. CONCLUSION

Rabbits can tolerate 10% of OL in their diets without adverse effect on these blood parameters.