

PP8 - EVALUATING THE IMPACT OF A WESTERN DIET ON BIOCHEMICAL PARAMETERS IN AN ANIMAL MODEL OF BREAST CANCER

Jessica Silva^{1*}, Tiago Azevedo¹, Abigaël Valada¹, Lara Anjos¹, Ana I. Faustino-Rocha^{1,2,3},
Paula A. Oliveira^{1,2} and José A. Duarte^{4,5}

¹ CITAB, Inov4Agro, Vila Real, Portugal

² Department of Veterinary Sciences, University of Trás-os-Montes and Alto Douro (UTAD), Vila Real, Portugal

³ Department of Zootechnics, School of Sciences and Technology, CHRC, University of Évora, Évora, Portugal

⁴ CIAFEL, ITR Laboratory, Faculty of Sport, University of Porto, Porto, Portugal ⁵TOXRUN-Toxicology Research Unit, CESPU, Gandra, Portugal

*silva_jessy@hotmail.com

Breast cancer continues to affect millions of individuals worldwide. In this way, it is of paramount importance to understand the effects of dietary choices in this disease development. This work aimed to evaluate the influence of Western diet (WD) on biochemical parameters in an animal model of breast cancer.

Twenty-eight female Wistar rats were divided into four groups (n=7): WD; WD+N-methyl-N-nitrosourea (MNU); Standard diet (SD); and SD+MNU. Animals from MNU groups received an intraperitoneal injection of the carcinogen MNU (50mg/Kg), at seven weeks of age. Animals were supplied with water and food *ad libitum*. WD groups received a WD with 60% of total calories coming from fat, while groups SD received a standard laboratory diet. Twelve hours before necropsy, animals were fasted and sacrificed through an intraperitoneal administration of ketamine (75mg/Kg) and xylazine (10mg/Kg). Blood samples were collected, and plasma was obtained by centrifugation (15min, 1500g). Biochemical parameters were determined in an autoanalyzer (Prestige 24i, Cormay). Data were analyzed using SPSS27, and values were considered statistically significant at $p < 0.05$. Serum levels of albumin, glucose, and alanine aminotransferase (ALAT) were similar among groups ($p > 0.05$). The highest cholesterol level was observed in SD group, (statistically different from WD and WD+MNU groups; $p < 0.05$). Triglycerides levels were higher in SD groups (SD and SD+MNU) when compared with respective WD groups ($p < 0.05$). Urea levels were higher in SD group when compared with WD group ($p < 0.05$).

Our results suggested that WD promotes lower cholesterol and triglycerides levels, and consequently lower urea production.

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