NEUTROPHILS ACTIVITY OF RATS TREATED WITH KEFIR Zolini, G.P.P.¹., Blanco, B.A²., Moreira, M.E.C¹., Massoco, C.O³., Fiorini, J.E.² Schneedorf, J.M⁴.

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This work evaluated the immune activity of neutrophils from rats treated with the probiotic kefir. Cytokine TNF- α levels, cell recruiting, cellular metabolism, neutrophils oxygen uptake, HO₂ production, and myeloperoxidase screening were conducted. Wistar rats received 1,0 ml of kefir solution as test group, 1,0 ml of NaCl 0,9 % solution as negative control group and 100 mg/kg of α-tocopherol or 0,5 mg/kg of dexamethasone, when suitable, for the positive control group, during 7 days. Results were analyzed by mean ± SEM, following comparison tests of SNK and t-Student. Mean differences were found in kefir and negative control groups, in cell recruiting assays (P<0.05), hydrogen peroxide formation stimulated by forbol ester (P<0.05) and myeloperoxidase identification (P<0.01). In cell recruiting assay, kefir, positive and negative control presented 12.0 \pm 1.0 x 10⁶, 7.3 \pm 1.4 x 10⁶ and 17.2 \pm 1.9 x 10⁶ neutrophils/mL, respectively. H₂O₂ formation stimulated by forbol ester resulted 1.46± 0.16, 2.14 \pm 0.18 (P<0.05) and 1.50 \pm 0.22 (P>0.05) fmol/cell, for kefir, negative and positive groups, respectively. Myeloperoxidase activity presented values of 54.8 ± 3.0 %, 47.3 ± 5.7 %, and 74.0 ± 1.9 % for kefir, postive and negative groups, respectively. Summarizing, kefir decreased the response of neutrophils in treated rats.