PP-338 [Apitherapy]
Does Apis Totale Have A Protective Effect On The Harms Of Radiation In Rats?

Fahri Emrah Soylu[1], Banu Yücel[2], Murat Olukman[3], Serra Kamer[4], Fatma Sert[4] , Cinel Koksal Karayıldırım[5], Ekin Varol[2]
Sinan Hoca[4] (0000-0002-4619-4184)
[1]Laboratory Animals Research Center (EGEHAYMER),Ege University, İzmir, Türkiye
[2]Department of Animal Science, Ege University, Izmir, Türkiye
[3]Department of Medical Farmacology, Faculty of Medicine, Ege University, İzmir, Türkiye
[4]Department of Radiation Oncology, Faculty of Medicine, Ege University, İzmir, Türkiye
[5]Department of Biology, Science Faculty, EgeUniversity, İzmir, Türkiye

Honeybees produce important bee products that are beneficial for human and animal health. In addition to these products that can be consumed for human and animal health, it is also possible to utilize them after the natural death of the honeybee. This product, called “Apis totale” Apis totale is produced by completely grinding dead drones and worker bees. It is obtained by extracting the biological contents of glands, internal organs and body parts. It contains chitin, heparin, heparinoid, glucosamine, melanin, acetic acid, honey, bee bread, propolis, pollen, royal jelly, apilarnil, bee venom, wax, melanin oil (Omega 3-6-9 and Q-10), proteins, carbohydrates, essential amino acids, polypeptides, flavonoids, proteins, enzymes, hormonal, vitamins, fiber, sterin, multiple Contains unsaturated fatty acids, hemolymph, peptides (adolapin, melitin, MCD-peptide, apamin and protease inhibitors). Apis totale extract form traditionally uses apitherapy for wound treatment, radiation protection, nerve healing, obesity and general support. This study aimed to investigate that Apis totale extract have a protective effect on the harms of radiotherapy. In experimental design of the study, radiotherapy applied to the left abdominal skin of the rats. The left abdominal region of the rats skin was shaved under proper anesthesia dosage and radiotherapy was applied. After formation of radiation-induced dermatitis Apis totale exract and sulfadiazine treatment compared each other. In the study the healing level of the abdominal skin was followed and histological analysis was performed. In the study, chemical analysis, amino acid analysis, dermatitis healing levels, ALT, AST, BUN levels in blood were performed. In radiation-induced dermatitis groups; one group Apis totale exract applied to the abdominal skin which radiotherapy apply, in the second group Apis totale excract applied with oral gavage before radiotherapy apply, after that radiotherapy applied than Apis totale excract applied to skin as a result of these we compared Apis totale excract protective effect on the harms of radiation. And all of the Apis totale excract groups compared to sulfadiazine treatment group and control groups. Our study is the pioneering study for investigation of Apis totale extract protective effects to the harms of radiotherapy and content analysis of it.