

Toxicology

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Lambda-cyhalothrin-induced reproductive toxicity and histopathological alterations in male mice

Ali S Al-Sarar, Yasser Abobakr, Alaa E Bayoumi, Hamdy I Hussein and Mousa Al-Ghothaimi King Saud University, Saudi arabia

Lambda-cyhalothrin is a broad-spectrum pyrethroid insecticide. The reproductive toxicity and histopathological effects of lambda-cyhalothrin was studied in male mice. Oral administration of lambda-cyhalothrin to adult male mice at 3 doses (0.2, 0.4, and 0.8 mg/kg body weight) for 6 weeks caused a significant reduction in the weight of the seminal vesicles and an increase in the count of morphologically abnormal spermatozoa. The highest dose caused a significant reduction in the epididymal sperm count compared with the control. The medium and the high doses decreased the percentages of live and motile spermatozoa compared with control mice. Histopathological examination of the testes, liver, spleen, and kidneys showed dose-related degenerative damage in lambda-cyhalothrin-treated mice. The results indicate that lambda-cyhalothrin has reproductive toxicity, hepatotoxicity, splenotoxicity, and nephrotoxicity in male mice at the tested doses.

Biography

Ali S Al-Sarar has completed his PhD from Ohio State University and Postdoctoral studies from Stanford University School of Medicine. He is an Associate Professor at King Saud University. He has published more than 25 papers in reputed journals.

asarar@ksu.edu.sa