

A subchronic oral toxicity study of almond skins in rats.

Song, Y 2010
Food And Chemical Toxicology
48:373-376.

Abstract:

Almond skins have been suggested to have some potential benefits. To investigate the subchronic toxicity of almond skins, a 90-feeding study was conducted in rats. Sprague-Dawley rats were randomly divided into four groups (20 rats/sex/group) and received a diet containing 0, 2.5, 5.0 and 10% (w/w) almond skins for 90 days. Daily clinical observations and weekly measurement of body weights and food consumption were conducted. Ophthalmic examinations were performed at pretest and termination. Blood samples were obtained on day 46 and day 91 for the measurement of hematology, coagulation and clinical chemistry parameters. Urine samples were collected on day 91 for urinalysis. Animals were euthanized for necropsy. Selected organs were weighted and recorded. Histological examination was performed on all tissues from animals in the control and high dose groups. No mortality, body weight, ophthalmic abnormalities or treatment-related findings in clinical observations, hematology, coagulation, urinalysis parameters, macroscopic or microscopic examinations were observed. Differences between treated and control groups in weight gain, food consumption and utilization, clinical chemistry, and organ weight were not considered treatment-related. The no-observed-adverse-effect-level (NOAEL) for almond skins was considered to be 10% (w/w) for both genders (females, 9.7 g/kg body weight/day; males, 8.2 g/kg body weight/day).