

## PS-003. Nephrotoxic Effects of Pesticides

Tülin Gönültaş, Necdet Aytaç, Muhsin Akbaba

Cukurova University Faculty of Medicine, Public Health Department, Adana

Pesticides are used extensively throughout the world and, in recent years, their use has increased considerably. Pesticides are responsible for several adverse effects on human health, and they represent a potential risk to human. Liver and kidney are firstly most harmed tissues by pesticides, because pesticides are removed from the body by being metabolized in the liver and kidney main road. A broad range of pesticides, including organophosphates, organochlorines, carbamates, pyrethroids and triazine herbicides have been shown to cause renal damage and dysfunction in animal toxicity studies. The most commonly reported pesticides implicated in human renal damage are organophosphates, though other pesticides are known to be nephrotoxic at high levels. Pesticide poisoning case studies, animal models, and in vitro laboratory research provide evidence for a damaging effect of both acute and chronic pesticide exposure on renal function. Yet, the impact of long-term pesticide exposure on the human kidney remains unknown. Evidence suggests that pesticide exposure may harm the kidneys through oxidative stress and resulting cell damage. Acute tubular necrosis has also been seen in animal studies of pesticide nephrotoxicity, along with other evidence of renal damage from pesticide exposure. Commonly observed renal symptoms in pesticide poisoning include acute tubular necrosis, hematuria, and proteinuria. Clinically, acute kidney injury is a frequent outcome of pesticide poisoning among humans, and is associated with subsequent renal disease. Chronic effects of pesticides on kidney: Albuminuria, increased urea creatinine levels, decreased secretory function. Because of potential health risks, pesticides should be used consciously and under supervision.

**Keywords:** Nephrotoxic, Pesticides, Poisoning