

Healthcare and Health Management & Cardiology and Cardiac Surgery

August 27-28, 2018 | London, UK

Chronic pesticides environmental contacts can lead to human's multi system impairment

Shiva Samsamshariat

Isfahan medical university, Iran

One of the most harmful chemicals in our environment today is pesticides, they go by a variety of names like insecticides, herbicides, fungicides and bactericides and are found in almost every public place and often in our houses. Most people are not even aware that they are exposed to these toxic substances. Pesticides are harmful and cause powerful disruptions in many organs of our body that are mentioned in this letter.

Reproductive System: They may disrupt the hormonal function of reproductive system and ovarian cycle, which may lead to negative effects on this system(1), infertility and abortion during pregnancy.

Fetus, Infants and Growing Baby, pesticides have some risks during pregnancy depending on pesticide and the time mother and the baby are exposed. Since fetus and baby's nervous system and organs are developing rapidly, they are more sensitive to the toxic effects of pesticides(2). Some pesticides have shown up in analyses of infant's cord blood, proving that such toxins are indeed transferred into the baby's body and can cause many problems like congenital heart diseases, musculoskeletal defects, neural tube defects, hypospadias, cryptorchidism and endocrine disruption (2), and also cause various degrees of physical and mental developmental delays in growing baby(3).

Nervous System: The chief target organ of pesticides is the brain because they seek out lipids and the brain is highly lipid. Neurotransmitters in the brain that are responsible for numerous functions within the mind and body, when neurotransmitters are not functioning properly, a variety of conditions can develop. Examples are Alzheimer's, Parkinson's, degeneration of the retina, autism, clinical depression, anxiety disorders, hyperactivity, insomnia or disrupted sleep and attention deficit(4).

Hematologic System: There are some reports indicating that some pesticides can alter the complement function, subpopulation levels, cell proliferation, cytokine secretion, surface markers, chemotactic migration, phagocytosis, antigen presentation and apoptosis induction(5)

Endocrine System: Some pesticides have been shown to alter thyroid gland function and reduce circulating thyroid hormones

level(1) which can compromise the catalytic activity of hepatic cytochrome P450 monooxygenases, resulting in an altered hepatic androgen metabolism(6). Malfunctioning of adrenal glands leads to cortisol imbalance, excessive fatigue, sweating, inability to handle stress, unstable blood sugar and electrolyte and a variety of other debilitating symptoms(9). They can interrupt male sex hormone(7) and can lead to prostate cancer(8).

Musculoskeletal System: Muscle weakness, cramp, pain and loss of muscle control, impaired mobility, uncontrollable shaking and trembling (9). Recommendation:

- 1) It is important to understand that any chemical that is designed to kill a living creature or plant, will be harmful to all living things. We offer the use of non-toxic and healthy alternatives to kill weeds, bugs, bacteria and fungus while characterizing patterns of exposure to the pesticides among the licensed pesticide applicators before use.
- 2) It is necessary to take off shoes before entering home, because shoes pick up pesticides everywhere the person goes.
- 3) It is recommended to avoid places where they are sprayed and to ask people and offices to notify when they use pesticides or herbicides and make sure windows are closed during the time they are used and for a couple of weeks after.
- 4) It is beneficial to eat organic food and not to live in an agriculture area.
- 5) It is recommended to TV commercials to airplay teaching programs.

Speaker Biography

Shiva Samsamshariat is emergency medicine specialist and works at unique toxicology hospital and center in Iran, Isfahan medical university, names Noor hospital. She looks that people and patients that have long time contact with pesticides have different complications like hormonal imbalance, recurrent abortion, refractory infertility, different cancers, musculoskeletal and neurologic disease, and none specific symptoms like chronic fatigue and exhaustion, weight loss, anorexia, sweating and emotion and psychological disorders like depressed mood, anxiety, depression and insomnia. Then she considered to inspect effect of pesticides on human organs, based on articles and valid references.

e: samsamshariat84@yahoo.com

 Notes: