

Increased exposures to pesticides: contribution of nursing

Aumento das exposições aos agrotóxicos: contribuição da enfermagem

Elizabeth Regina de Melo Cabral¹ • Herling Gregório Aguilar Alonzo²

Brazil is a power in agriculture. For a long time, it has been known that the use of agrochemicals has increased in Brazilian agriculture due to the inadequate exploitation of the soils and the application of lagged productive methods. Only in 2017, about 540,000 tons of active ingredients of these products were consumed⁽¹⁾.

In February 2019, with the publication in the Official Gazette of Act No. 10 of the General Coordination of Agrochemicals and Related, which grants for the year 2019, more than 29 records of pesticides. Along with three similar acts published in January and February of the same year, the total number of pesticide registrations granted has already reached 86. From 2010 to 2016, registrations have always been below 20 per year. In the last two years the number has risen to 47 (2017) and 60 (2018), record in only 50 days⁽¹⁾.

According to data folder of the Ministry of Agriculture, in the period from 2015 to 2018 the number of authorized records grew by the order of 220%. And with these recent releases, the country now has 2,123 agrochemicals, consolidating its position as one of the largest consumers of pesticides on the planet⁽²⁾.

In this way, the government again contradicts itself with the discourse that new pesticides are less dangerous, where almost half of today's records fall into the category extremely toxic or highly toxic to humans. For this classification only consider the acute symptoms caused by pesticides. Chronic symptoms such as cancer, depression and mutagenesis do not enter this assessment. And the effects of mixing pesticides are also ignored⁽³⁾.

Of these extremely toxic products currently registered, are Glyphosate, already banned in France because of its carcinogenic potential. And another recently released pesticide is the 2,4-D base. In humans, this molecule (2,4-D) causes genetic alterations, embryo malformations, neurotoxicity, hematological alterations, metabolic disorders and hormonal dysregulation, as well as the acute effects^(1,2).

These approvals have been fostering discussions in the health field, since it increasingly exposes not only agricultural workers, who deal directly with toxic substances in their day-to-day work, but also for every population, which is exposed in the food, in the water or in the indirect contact of these products⁽³⁾.

Intoxications due to exposure to pesticides result in a complex interaction between the characteristics of the pesticide and exposure to the product. Prolonged exposure to pesticides and acute intoxication cycles may lead to subacute and chronic intoxication with irreversible damage⁽²⁾.

Some pesticides may have effects on human development, such as fetal malformations. There are studies that point out the maternal environmental exposure to pesticides was associated with a higher occurrence of fetal malformation in all trimesters of gestation. Moreover, there are literatures that associate occupational exposure to the pesticides of the father or mother⁽³⁾ in the occurrence of fetal malformation⁽³⁾.

It is evident the aggression to life and the environment, strongly motivated by economic interests, which involves transnational industries, and with the government's guarantee of spilling these products in Brazil.

The effectiveness and effectiveness of actions to protect the health of the population depends on the network articulation, where the interinstitutional, multidisciplinary and participatory processes and practices that incorporate

NOTA

¹Nurse. Master and PhD student in Collective Health, State University of Campinas. Professor of the São Leopoldo Mandic Medical School. Corresponding author.

²Doctor. PhD in Public Health. Adjunct Professor, Faculty of Medical Sciences, State University of Campinas.



information of social, environmental and health impacts related to the agricultural production process and the occupational exposure, food, environmental and population benefits to agrochemicals ^(2,3).

In view of these points, it should be stressed that the performance of nurses, duly trained to act in the prevention, promotion, treatment and rehabilitation of health and in the denunciation of factors related to the appearance of diseases related to exposure to pesticides, is of paramount importance in order to provide guidelines for the population.

REFERENCES

1. Permanent Campaign Against Agrochemicals and for Life [Internet]. Official poisonous diary: another 29 agrochemicals approved today. [access on 24 March 2019]. Available from: <http://contraosagrotoxicos.org/diario-oficial-venenoso-mais-29-agrotoxicos-aprovados-hoje/>
2. Carneiro FF, Rigotto RM, Augusto LGS, Friedrich K, Búrigo AC, organizadores. Dossiê ABRASCO: an alert on the health impacts of agrochemicals. Rio de Janeiro: EPSJV, São Paulo: Expressão Popular, 2015.
3. Pignati WA, Souza e Lima FAN, Lara SS, Correa MLM, Barbosa JR, Leao LHC & Pignati MG. Spatial distribution of pesticide use in Brazil: a tool for Health Surveillance. *Ciência e Saúde coletiva*. 2017; 22(10):3281-93.