PESTICIDE EXPOSURE IS ASSOCIATED WITH INCREASING OF EARLY MENOPAUSE IN WOMEN FARMER AT BREBES DISTRICT OF INDONESIA

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Background: That Brebes as the largest user of pesticides in Indonesia have potential for the occurrence of pesticide poisoning which will give effect on health. Pesticide exposure has been associated with reproductive health disturbance. Some pesticides like parathion and methyl parathion are structurally similar with estrogen and may interact with hormone receptors. It cause alteration hormonal balance, direct female gamete damage. Early menopause can be associated with atresia folicular ovarian and pesticide can cause to increase a number of atresia folicular ovarian.

Objectives: To prove association between pesticide exposure with early menopause in women farmer who regularly exposed pesticide.

Methods: It will use an observational research using cross sectional design. We need collect all women aged 30-45 at each subdistricts in Brebes District. We will select with using proportional stratified random sampling. Each women who selected will be measured the estrogen and progesteron level in blood serum.

Results: These research methods can be proved with measuring some variables which proved from some researches before with poisoning pesticide cases. Variables in this study include duration to be a farmer, duration of working, intensity of spraying and personal protective equipment use. In other hand, need to measure of estrogen and progesterone level in blood serum to strenghten association each variables. With using statistic analysis we can prove association between pesticide exposure and early menopause in women farmer in Brebes District of Indonesia.
Conclusion: Association pesticide and early menopause can be proved strong design study which is ensured with measuring reproductive hormone level. In other hand we need to make a district mapping for total patients who have early menopause because pesticide.