

## ABSTRAK

**Latar Belakang:** Intensitas penggunaan pestisida di daerah perkebunan tembakau sangat tinggi. Paparan pestisida mengancam kesehatan tenaga kerja di sektor perkebunan. Wanita Usia Subur (WUS) merupakan salah satu kelompok pekerja, sekaligus sebagai populasi yang berisiko mengalami hipotiroid. Studi ini bertujuan menghitung prevalensi hipotiroid pada WUS, mengetahui adanya hubungan paparan pestisida dan hipotiroid subklinis serta mengetahui hubungan riwayat hipotiroid keluarga, riwayat kehamilan, kadar ekskresi yodium urin (EYU) dan konsumsi bahan makanan goitrogen terhadap kejadian hipotiroid.

**Metode:** Rancangan penelitian adalah potong lintang. Populasi penelitian adalah wanita usia 18-49 tahun di Kecamatan Tembarak. Sampel memenuhi kriteria inklusi dan eksklusi. Data primer dikumpulkan menggunakan kuesioner, pemeriksaan fisik dan penunjang. Pemeriksaan fisik mengukur berat badan, tinggi badan, tekanan darah dan denyut nadi oleh tenaga medis. Pemeriksaan penunjang mengukur kadar TSH darah dan EYU. Analisis data dilakukan menggunakan uji regresi *Poisson*.

**Hasil:** Sampel sebanyak 100 orang WUS. Prevalensi hipotiroid subklinis pada WUS di Kecamatan Tembarak adalah 21%. Hasil uji statistik menunjukkan bahwa paparan pestisida berhubungan dengan kejadian hipotiroid (PR=4,27;  $p=0,04$ ; 95%CI=1,05-17,33).

**Kesimpulan:** Terdapat hubungan antara paparan pestisida dan kejadian hipotiroid subklinis. Kejadian hipotiroid pada subyek yang terpapar pestisida 4 kali lebih besar dibanding subyek yang tidak terpapar pestisida. Penelitian lebih lanjut diperlukan untuk memastikan status hipotiroid yang terjadi disebabkan oleh paparan pestisida.

**Kata kunci:** pestisida, kadar TSH, wanita usia subur, hipotiroid subklinis

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**Background:** Intensity the use of pesticides in tobacco plantation is very high. The risk of pesticide exposure threaten the health of workers in agricultural sector. Woman at childbearing is one of agricultural workers, as well as the susceptible population to hypothyroidism. This study was conducted to calculate the hypothyroidism prevalence, determine association between pesticide exposure and hypothyroidism and also family history of subclinical hypothyroidism, pregnancy, iodine urine excretion (IUE) and goitrogen consumption.

**Method:** This is a cross-sectional study. Population is women at childbearing age 18-49 years. Sample was obtained according to the inclusion and exclusion criterias. Primary data was collected by questionnaire, physical examination and laboratory. Physical examination to measured weight, height, blood pressure and pulse by general practision. Laboratory examination to measured thyroid stimulating hormone level and iodine intake through iodine urine excretion. We analyse the data using poisson regression.

**Results:** The study involved of 100 womens at childbearing age. The prevalence of subclinical hypothyroidism on womens at childbearing age at Tembarak district was 21%. The result showed there was association between pesticides exposure and hypothyroidism (PR=4.27; p=0.04; 95%CI=1.05-17.33).

**Conclusions:** There was association between pesticides exposure and subclinical hypothyroidism. Hypothyroidism among subject were exposed pesticide was 4 times higher than unexposed subject. Need more research to ensuring hypothyroidism caused by pesticides exposure.

**Keywords:** pesticides, TSH level, women at childbearing age, subclinical hypothyroid