

ABSTRAK

Penelitian ini bertujuan untuk mengetahui perbedaan kandungan Cadmium dalam menu makanan pada kelompok Studi dan Pembanding. Selain itu Juga untuk mengetahui perbedaan konsentrasi Cadmium darah, menganalisa pengaruh antara variabel menu makanan dan konfounding variabel terhadap kandungan Cadmium darah. Serta menganalisa gejala sakit yang disebabkan karena penambahan Cadmium.

Jenis penelitian ini adalah Analitik Observasional dengan desain Crossectional yaitu hanya melakukan pengamatan dan pemeriksaan Laboratorium tanpa melakukan intervensi. Sampel darah berjumlah 88 orang terdiri dari 44 kelompok Studi berada di Surabaya dan 44 kelompok Pembanding berada di Magetan. Sampel menu makanan ada 6 jenis: dari dapur besar diperiksa tiga kali, dari tempat makan (siap saji) diperiksa satu kali. Uji Statistik yang digunakan : Uji T , Mantel-Haenszel , Odds Ratio dan Multiple Regression.

Hasil : kandungan Cadmium dari enam jenis menu makanan yang dikonsumsi kelompok Studi melebihi N.A.B. sedang pada kelompok Pembanding dibawah N.A.B. Kandungan Cadmium darah pada kelompok Studi rata-rata = 0,28107 ppm, pada kelompok Pembanding = 0,00358 ppm. Analisa Uji T antar variabel menu makanan dan antar Cadmium darah dari kedua kelompok menunjukkan hasil signifikan kecuali pada daging ayam; Uji Mantel-Haenszel antara konfounding variabel terhadap Cadmium darah yang signifikan hanya pada variabel merokok. Odds Ratio pada kelompok pembanding ada kecenderungan lebih besar terjadi. Dengan Multiple Regression dari lima variabel makanan dan merokok hasil yang signifikan pada menu makanan ikan dan merokok.

Upaya yang disarankan : ikan bandeng diganti dengan jenis ikan air tawar seperti: Lele, Gurami atau ikan laut dari pantai selatan seperti ikan tengiri, tongkol. Penyuluhan tentang bahaya merokok terhadap kesehatan perlu ditingkatkan.

ABSTRACT

The objective of this study was to identify the difference of cadmium content in the diet of studied and control group, to determine the concentration of blood cadmium, to analyze the effect of diet at confounding variable on blood cadmium content, and to analyze symptoms of disease resulting from cadmium addition.

This was cross-sectional analytical study, in which the author carried out observation and laboratory examination only. No intervention was involved. Blood sample was taken from 88 individuals, comprising 44 students of Dikcata TNI-AL in Surabaya as studied group, and 44 students of Dikcata TNI-AD in Magetan as control group. There were six samples of menu. Those from the kitchen were examined three times, and those from serving table were examined once. Statistical analyses were done using T- test, Mantel-Haenszel, Ods Ratio and Multiple Regression test.

Result revealed that cadmium content in six types of menu consumed by studied group was beyond the threshold, while that of control group was lower than the threshold. Blood cadmium content in studied group was averagely 0,28107 ppm, and that in control group was 0,00358 ppm. Analysis using T – test between the variable of menu and blood cadmium in both groups showed significant result, except in chicken meat. Mantel-Haenszel test between confounding variables and blood cadmium revealed significance only in smoking. Odds Ratio showed that a higher predisposition. Multiple Regression test proved that from 5 types of menu and smoking, significant result was found in Fish and Smoking.

It is suggested that Fish (Bandeng) should be replaced with fresh water fishes, such is Lele or Gurami from salt water fishes from southern coast, such as tengiri or tongkol. Education on the threat of cigarette smoking to human health should be improved.