

Abstract

The study included measurement of the concentration of (Fe , Mn , Cd,)for (90) subjects workers in different department of the state company for petrochemical industry. The study showed significance (P< 0.05) in the Fe concentration , but no significance differences in the concentration of each Mn and Cd.

(Cd) (Mn) (Fe)

(Grayl,1997)

(Xiu , 1996) (Co, Cr ,I , F ,Se ,Mn , Fe ,Zn)

"

(Hemoglobin)

Guyton ,)

. (1986

Metalonenzymes

. (Edler al , 1996 ,Under wood ,1962)

. (Underwood 1962)

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Metallothionin

. (Gill and ,Kagi and Vallee ,1961 Pant 1983)

Bonnel (1965)

"

(2002)

(90)

:-

(15)

. () (15)

. (HDPE) (15)

.(PCV) Polyvinylchloride (15)

.(VCM) vinyl chloride monomer (15)

D.V.C (15)

(50-25)

³ (2) ³ (5) (EDTA)

(Centrifuge , Hettich –Roto fix (11)

(Ashimatzo model AA-630-12 atomic absorption spectrometer)

. ANOVA test .(Price,1972)

(1)

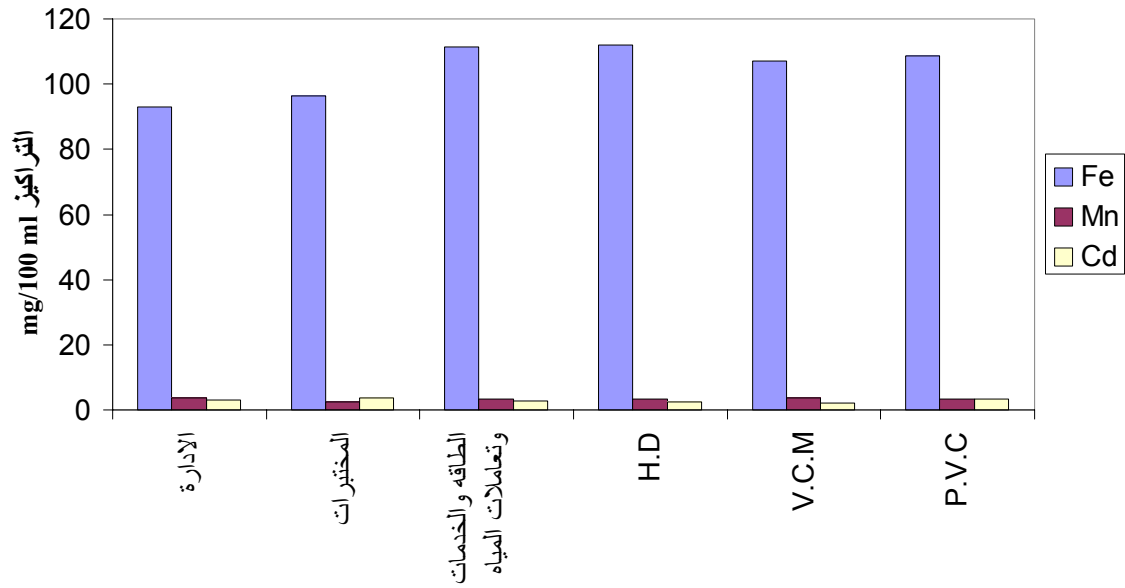
Hb% Mean±SD	Cd µg/100ml Mean±SD	Mn µg/100ml Mean±SD	Fe µg/100ml Mean ± SD	
13.207±0.240 (n=14)	3.110±0.012 (n=14)	3.790±0.023 (n=14)	92.860±0.338 (n=14)	
13.136 ±0.743 (n=14)	3.630±0.011 ^b (n=9)	2.430±0.005 ^b (n=7)	96.430±0.182 ^a (n=14)	
13.121_+0.776 (n=14)	2.800±0.0010 ^b (n=10)	3.320±0.006 ^b (n=10)	111.540±0.230 ^a (n=14)	
3.224±0.788 (n=14)	2.440±0.008 ^b (n=9)	3.330±0.005 ^b (n=9)	112.167±0.229 ^a (n=14)	H.D
13.114±0.619 (n=14)	2.250±0.007 ^b (n=8)	3.560±0.011 ^b (n=9)	107.140±0.223 ^a (n=14)	V.C.M
12.729±1.367 (n=14)	3.330±0.020 ^b (n=9)	3.440±0.007 ^b (n=9)	108.570±0.231 ^a (n=14)	P.V.C

n=

SD =

a→ p < 0.05

b→ p > 0.05



(1)

(1-) (1-)

112.167±0.229	111.540 ±0.230	96.430 ± 0.182	92.860±0.338
()	100/	108.570±107.140	0.231±0.223
		P.C.V	V.C.M H.D

(P<0.05)

3.790±0.023	3.440±3.560	0.007±0.011	3.330±0.005	3.320±0.006	2.430±0.005
2.800±0.010	3.630±0.011	3.110±0.012	100/		
		100/	3.330±0.020	2.250±2.440	0.007±0.008
			P.V.C.	V.C.M	H.D

(P >0.05)

(P<0.01)

(P>0.05)

Trace

.Tietz, 1986) biochemical substance

Metabolism
(2001,

. (Ris et al, 1994; Wada and King, 1994)

(Meadows et al, 1983)

(2002)

.ml100 /123-127µg

15-12

50

mangenes- depende enzymes

. (Tietz, 1986)

1 ppm

30

metallothion

.(1994)

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Biomed Environ. Sci 9, 130-6.

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:(2002)

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:(2001) *