

IgE

(2009/3 /30 2009/ 1 /19)

(55)

%60

IgE

(%38.2)

()

(120.9 IU/ml)

IgE

(44.1 IU/ml)

(215.8 IU/ml)

(100 IU/ml)

IgE

(%41.5)

(56.6 IU/ml)

(142 IU/ml)

(%7.6)

. (%9.8)

The Investigation of Allergy Result from Pollution in Cement Factory Workers and Measurement of the Total IgE Level

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ABSTRACT

The study was conducted to investigate the allergic reaction among the workers of Hamam Alalil Cement Factory in Nenivah . 55 blood samples were collected from workers at different department of the factory . ELISA for IgE and Eosinophil count were performed. The results indicated that 60% of the workers were suffering from one or more allergic reaction (Respiratory , Dermatological or Eyes sensitivity). The heighest reaction sensitivity was Dermatological 38.2% , The results revealed that the more the exposure time to cement pollutants the more the percentage of allergy , also that the percentage of allergic reaction was different at different departments . The general level of IgE in workers was found to be 120.9 IU/ml which differed with the type of reaction , the heighest was 215.8 IU/ml in workers with more than one reaction , the lowest 44.1 IU/ml in workers with no reaction . The results also indicated that the IgE concentration in 41.5% of workers was more than 100 IU/ml , and the heighest 142 IU/ml was in the kiln department while the lowest 56.6 IU/ml was at the administration department . The average eosinophil count was 7.6% , the heighest was 9.8% among workers with more than one reaction .

(Adams, 2006)

(Sotcher *et al.*, 1994)

(Mike, 1991)

(Mwaiselage *et al.*, 2006)

(Sahai, 2002)

(IgE) E

(Atopic Allergy)

. (Adams, 2006) Delayed allergy

.....

(De Martin, 1993)

.(Iraj *et al.*, 2006)

De Martin,)

(1993

. (HSE., 2002 ; Sahai , 2005)

(IgE)

/

(60-15)

)

(EDTA)

(

IgE

(Leishman stain)

. (Koneman *et al.*, 1997)

(IgE)

(Direct- ELISA) Enzyme Linked Immuno Sorbet Assay

BioCheck

(IgE)

450

IgE

() (%60)

(%38.2) (1)

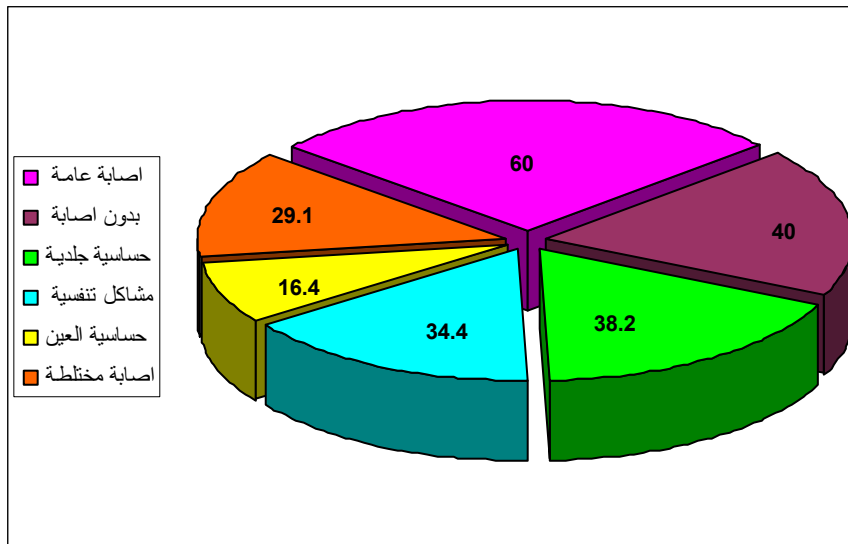
(%29.1) (%16.4)

(1)

10 (%71.4)

5-1 (%41.6) (%42.8)

(%25 %37.5)



.....

:1

%	%	%	%	
25	37.5	58.3	41.6	5-1
50	54.2	33.3	66.6	10-6
42.8	71.4	28.6	71.4	10 <

Mwaiselage *et al.*,)

(Mongkolsuk, 2005)

%95 (2004

%65

AbuDhaise *et al.*,)

%58

(Meo *et al.*, 2002)

(Al Neaimi *et al.*, 2002)

%36

(1997

%24

% 71.4

%65

(Irvine *et al.*, 1994)

(Bock *et al.*, 2003)

(Abou Taleb, 1995)

(Iraji *et al.*, 2006)

%22

%12

25

%100

(Khodaeian *et al.*, 2006)

(Alvear *et al.*, 1999 ; Mwaiselage *et al.*, 2005 ; Iraji *et al.*, 2006)

. (Mike, 1991 ; HSE, 2002)

(2)

(%66.6)

(%33.3) (%66.6)

(%66.6)

(%50) (%16.6) (%58.3)

.

:2

50	0.0	11.1	44.4	16.6	58.3	32	56	66.6	66.6	
50		55.5		66.6		56		66.6		%
50		44.4		33.3		44		33.3		%

(Mwaiselage *et al.*, 2004) (Mwaiselage *et al.*, 2005)

(%28) (%47)

(%4) (%13)

.....

(De Martin, 1993)

Avnstorp,)

(HSE, 2005)

(2006

(Mike, 1991)

(Bock *et al.*, 2003)

E

IgE

IgE

(IU/ml120.9)

(215.8IU/ml)

(2)

IgE

(44.1 IU/ml)

(3)

(%41.5) (80-10 IU/ml)

IgE

(%48.8)

IgE

(100 IU/ml)

IgE

(%9.7)

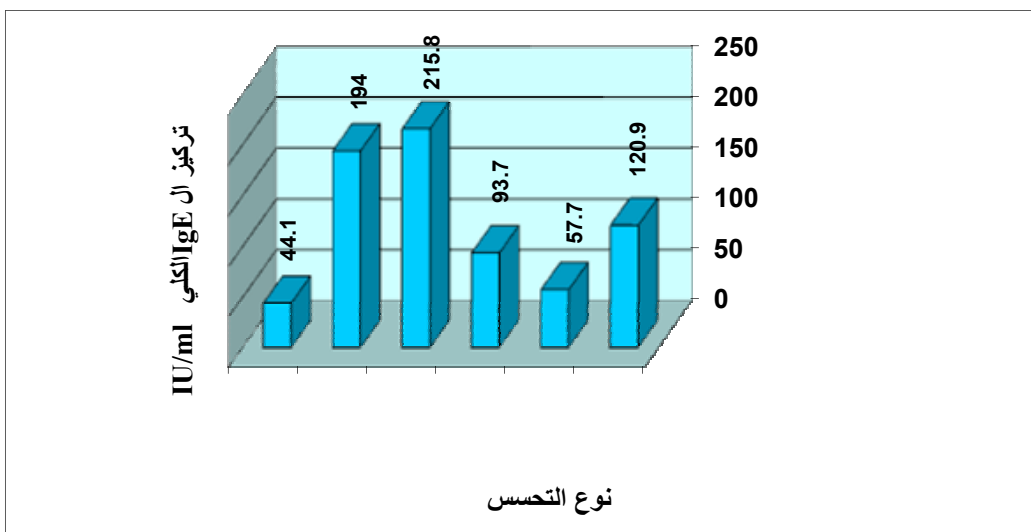
(100-80 IU/ml)

(142 IU/ml)

(3)

(89 106.1 132.1 IU/ml)

(56.6 IU/ml)



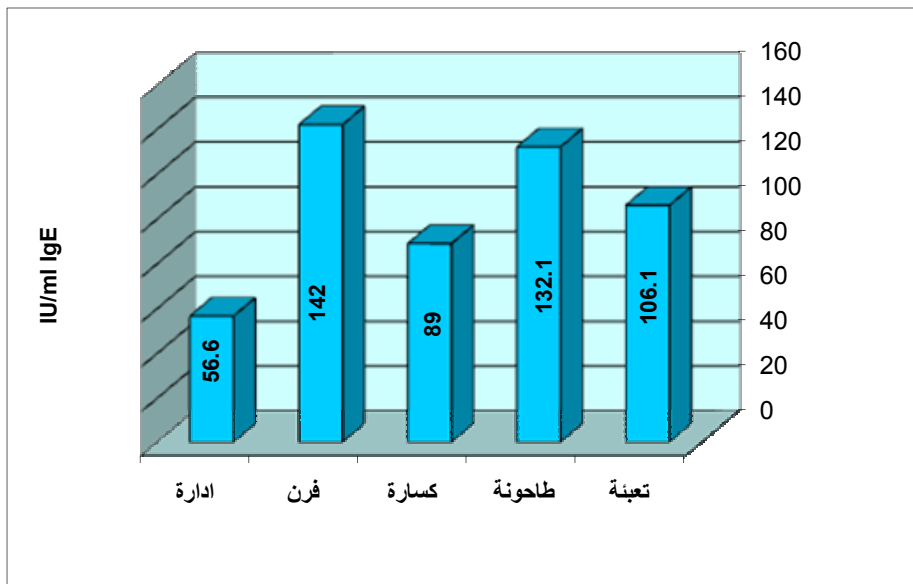
IgE

:2

IgE

: 3

IU/ml	IgE	%	IgE 3 /
32.8		48.8	80 - 10
86.3		9.7	100 - 80
232.8		41.5	100<



IgE

: 3

IgE

()

IgE

Atopic Allergy

()

. (Duffield, 1998) Cell-mediated Allergy

IgE

.....

IgE

(David, 2001)

(1982) IgE

IgE

(Leroyer *et al.*,1998 ; Adams, 2006)

IgE

(Sotcher *et al.*, 1994)

(Iiavska *et al.*, 2005)

IgE

IgE

(DeRaeve *et al.*, 1998)

Wanger and)

(Nore *et al.*, 2000 ; Mwaiselage *et al.*, 2005)

IgE

(Almaguer, 1997

.

(4)

(%84.2)

(%4)

(4)

(%7.6)

(%9.8)

(%4.5)

IgE

(Iiavska *et al.*, 2005)

IgE

(DeRaeve *et al.*, 1998)

(SuLim *et al.*, 1997)

%18

(Calistus *et al.*, 2002)

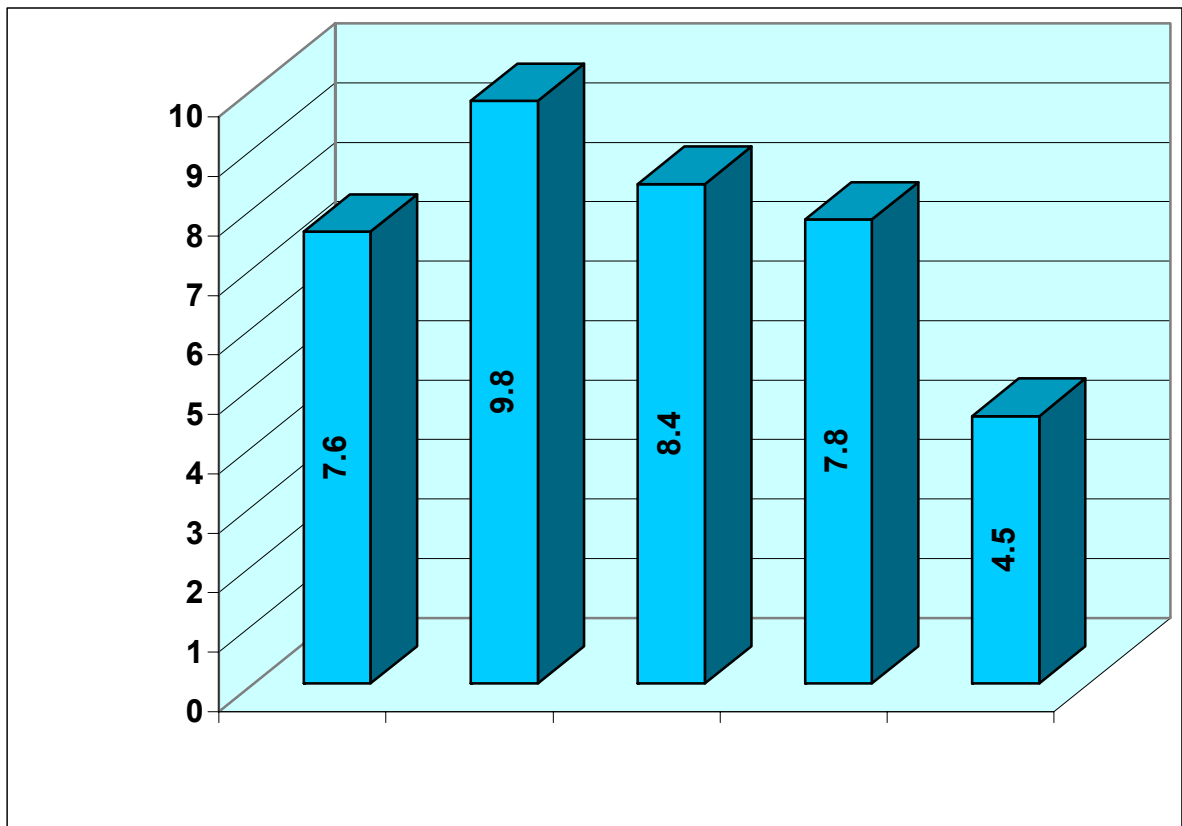
30

IgE

. (Willey, 2008)

: 4

	%	
2.7	15.8	3-1
5.1	47.4	7-4
11.3	36.8	7 <



: 4

.1982

IgE

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