Results

Tables (1-6) and figures (1-12) represent and illustrate our results.

Table 1: Comparison between the study groups as regards age and sex.

	Studied groups				**Test of significance**	**P value**
	Case (n = 15)		**Control (n = 15)**			
Age years	X ±SD 5.23 ± 4.37		X ±SD 5.60 ± 3.69		**Mann Whitney U** 0.459	>0.05 NS
	No	**%**	**No**	**%**		
Sex					X^2	
Male	10	66.7	6	60.0	0.11	>0.05
Female	5	33.3	4	40.0		NS

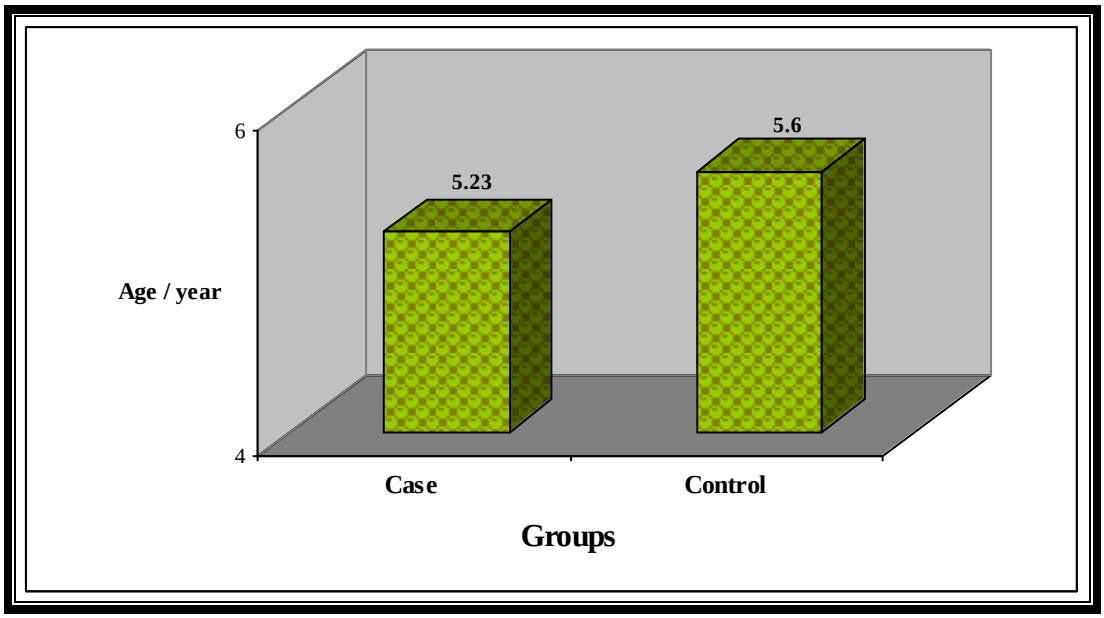

Figure 1: Comparison between case and control groups as regards age.

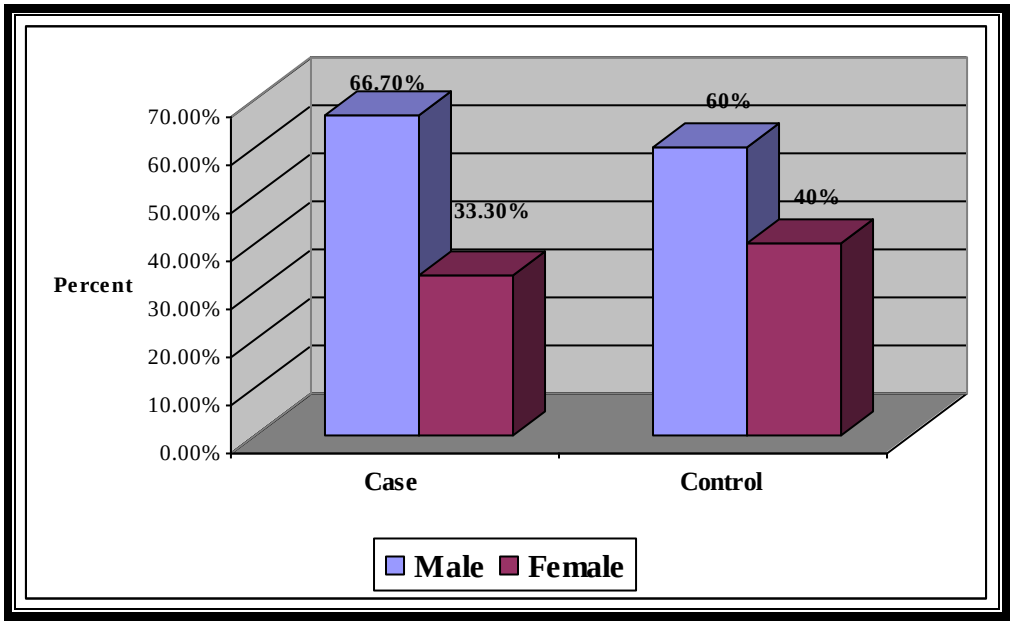

Figure 2: Comparison between case and control groups as regards sex.

Table (1) and figures (1&2) show no significant differences between patients and controls as regards age and sex.

Table 2: Comparison between atopic & non-atopic asthma as regards age & sex.

	Asthma group				**Test of significance**	**P value**
	Non-atopic asthma (n = 8)		**Atopic asthma (n = 7)**			
Age (years) X ±SD	2.56 ± 2.06		8.22 ± 4.92		**Mann Whitney U** 2.2	**<0.05 S**
	No	**%**	**No**	**%**		
Sex					χ^2	
Male	4	50.0	6	85.7	2.14	>0.05
Female	4	50.0	1	14.3		NS

P<0.05=Significant

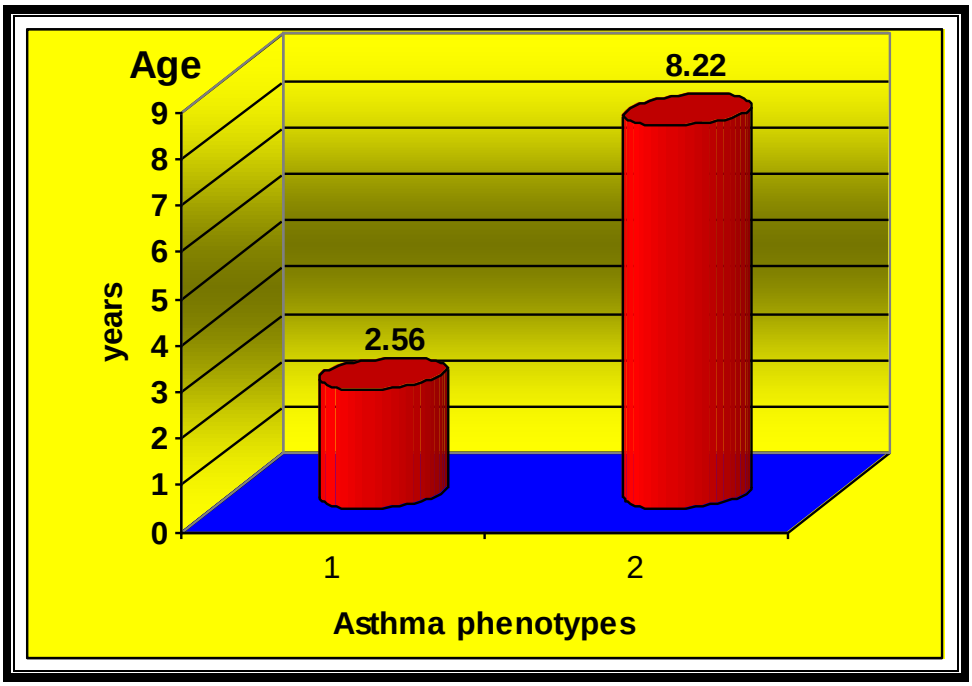

Figure 3: Comparison between atopic & non-atopic asthma as regards the mean age.

Table (2) & figure (3) show that the atopic-asthma group has a significantly higher mean age than the non-atopic asthma group but, the sex difference between them is non significant.

Table 3: Comparison between both types of asthma as regards the presenting symptoms & serum IgE level.

	Asthma group				**Test of significance**	**P value**
	Non-atopic asthma (n = 8)		**Atopic asthma (n = 7)**			
	No	**%**	**No**	**%**		
Cough					χ^2	
Positive	8	100	7	100	--------	--------
Negative	0	0.0	0	0.0		
Dyspnea					χ^2	
Positive	3	37.5	1	14.3	1.02	>0.05
Negative	5	62.5	6	85.7		NS
Wheezy chest					χ^2	
Positive	5	62.5	1	14.3	3.61	>0.05
Negative	3	37.5	6	85.7		NS
Chest tightness					χ^2	
Positive	1	12.5	1	14.3	0.01	>0.05
Negative	7	87.5	6	85.7		NS
Total IgE (IU/ml)	27.65 ± 24.63		216.05 ±100.56		**3.24**	**<0.01 HS**

P<0.05=Significant

Table (3) shows that there is no significant differences between atopic and non-atopic asthma as regards the presenting symptoms but, the atopic-asthma group has significantly higher mean total IgE level than that of the non-atopic patients.

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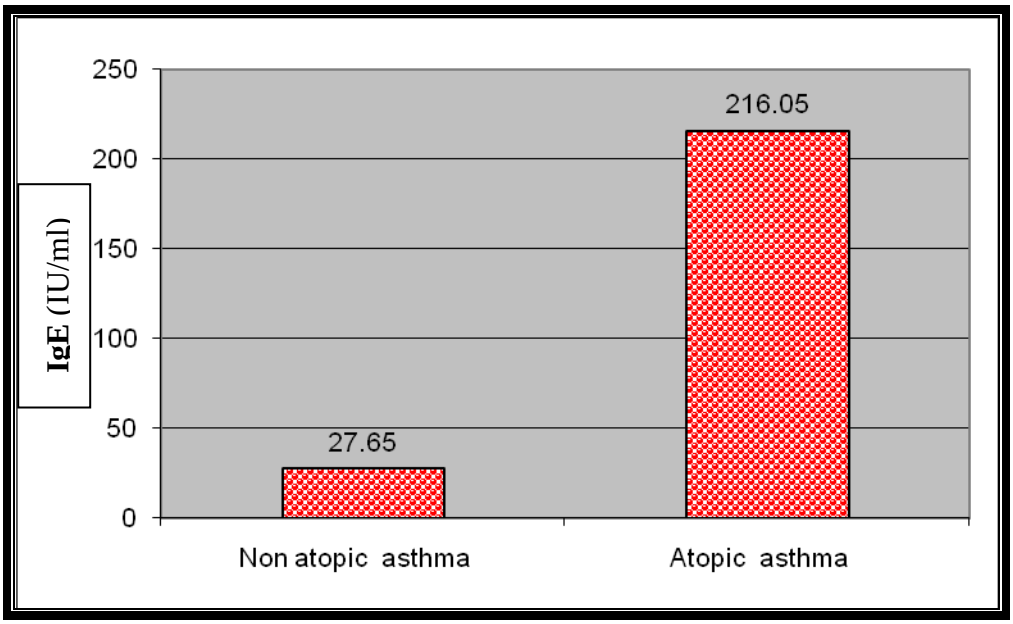

Figure 4: Comparison between asthma phenotypes regarding the mean total serum IgE level.

Figure (4) shows that the total IgE level in atopic-asthma is significantly higher than that in non-atopic asthma.

Table 4: Comparison between the case and control groups as regards different laboratory parameters.

	Studied groups		Mann Whitney U	P value
	Case (n = 15)	**Control (n = 15)**		
	X ± SD	**X ± SD**		
Hb (gm/dl)	10.54 ± 1.50	11.74 ± 0.65	**t-test 2.84**	**<0.05 S**
Platelets ($x10^3$/cmm)	270.133±60.329	274.400±74.188	**t-test 0.173**	>0.05 NS
WBC's ($x10^3$/cmm)	7.70 ± 3.18	7.58 ± 0.97	**0.686**	>0.05 NS
Staff (%)	2.40 ± 2.26	1.80 ± 1.01	**0.256**	>0.05 NS
Segmented (%)	51.0 ± 10.34	53.26 ± 6.47	**t-test 0.719**	>0.05 NS
Lymphocytes (%)	39.53 ± 12.80	41.73 ± 6.04	**t-test 0.602**	>0.05 NS
Eosinophils (%)	3.80 ± 2.83	1.60 ± 0.82	**2.38**	**<0.05 S**
Monocytes (%)	3.0 ± 1.69	1.0 ± 0.0	**3.97**	**<0.001 HS**
Basophils (%)	0.26 ± 0.45	0.40 ± 0.50	**0.762**	>0.05 NS
Total IgE (IU/ml)	115.57 ± 18.75	28.54 ± 17.82	**2.747**	**<0.05 S**

P<0.05=Significant
P<0.01= Highly Significant

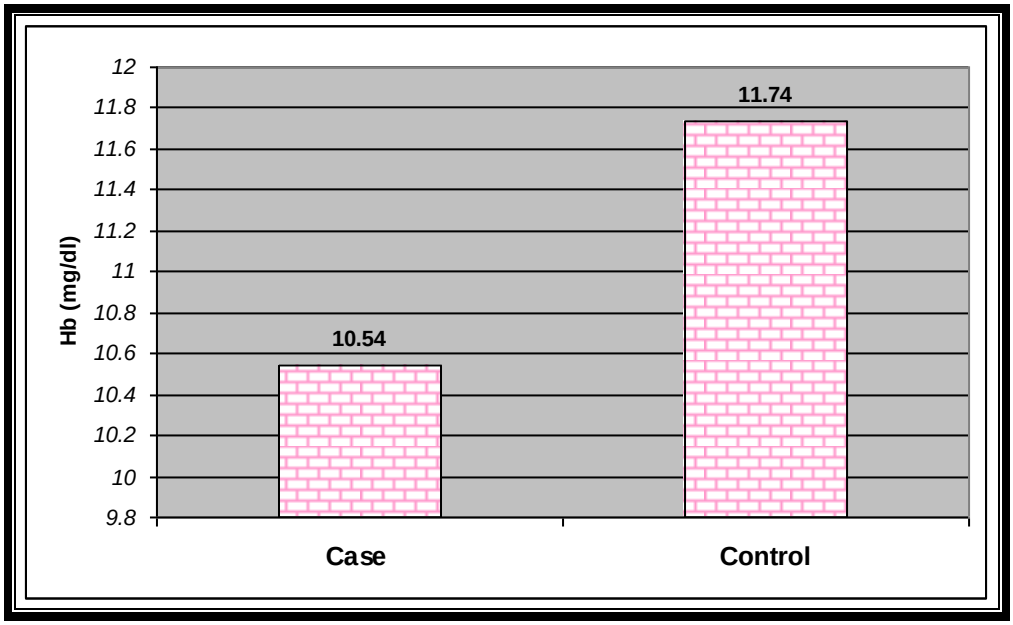

Figure 5: Comparison between the case and control groups as regards the hemoglobin concentration.

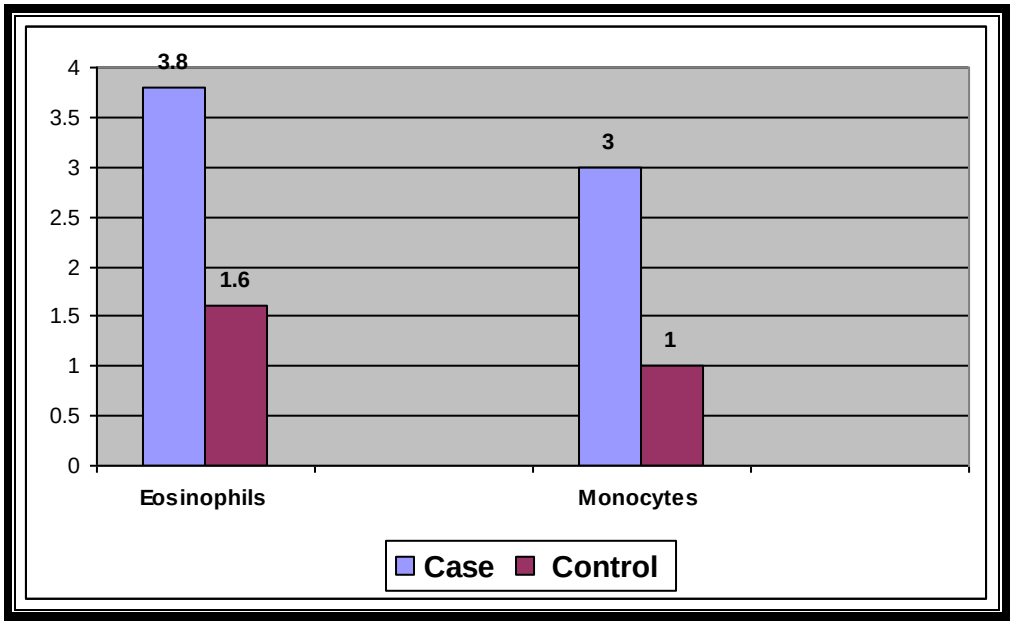

Figure 6: Comparison between the case and control groups as regards the eosinophil & monocyte counts.

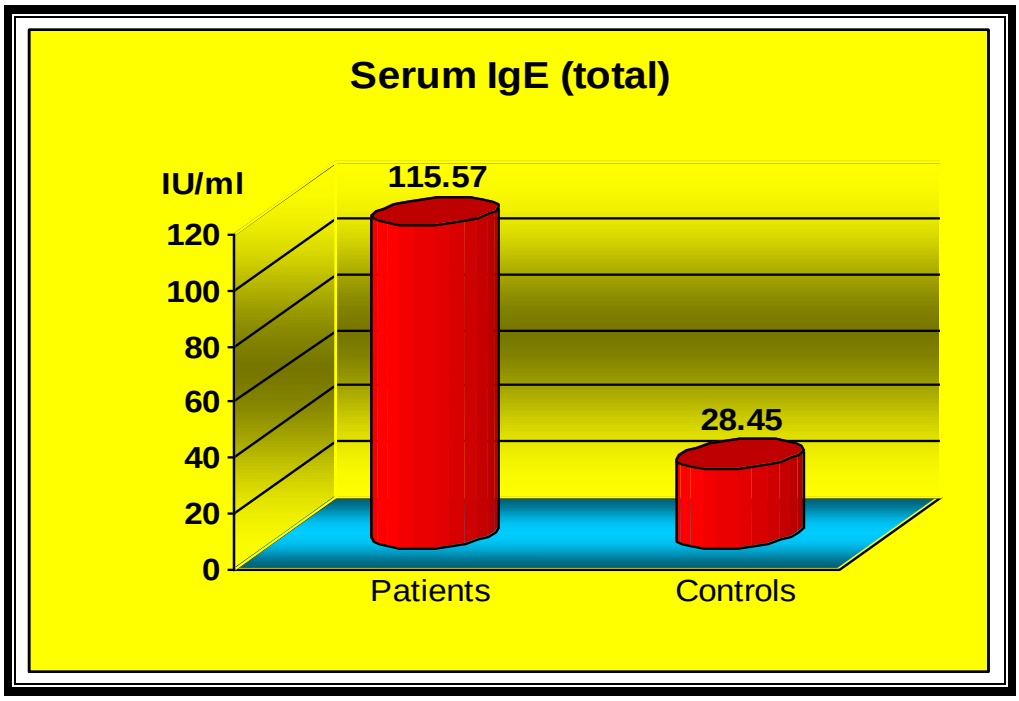

Figure 7: Comparison between the case and control groups as regards the total serum IgE level.

Table (4) and figures (5, 6 & 7) show that the patients have a significantly lower mean hemoglobin level and significantly higher means of monocyte and eosinophil counts as well as serum IgE levels when compared to the controls.

Table 5: Comparison between the case and control groups as regards ESR, CRP and CD20 expression.

	Studied groups				Test of significance	P value
	Case (n = 15)		Control (n = 15)			
ESR (mm/h) X ±SD	20.73 ± 17.24		8.20 ± 6.04		**Mann Whitney U** 2.44	**<0.05 S**
	No	**%**	**No**	**%**		
CRP Positive Negative	5 10	33.3 66.7	0 15	0.0 100	χ^2 6.0	**<0.05 S**
CD20 expression X ± SD	27.04 ± 6.75		20.70 ± 3.68		**t-test** 3.19	**<0.01 HS**
CD20 expression High Normal	5 10	33.3 66.7	0 15	0.0 100	χ^2 6.0	**<0.05 S**

P<0.05=significant

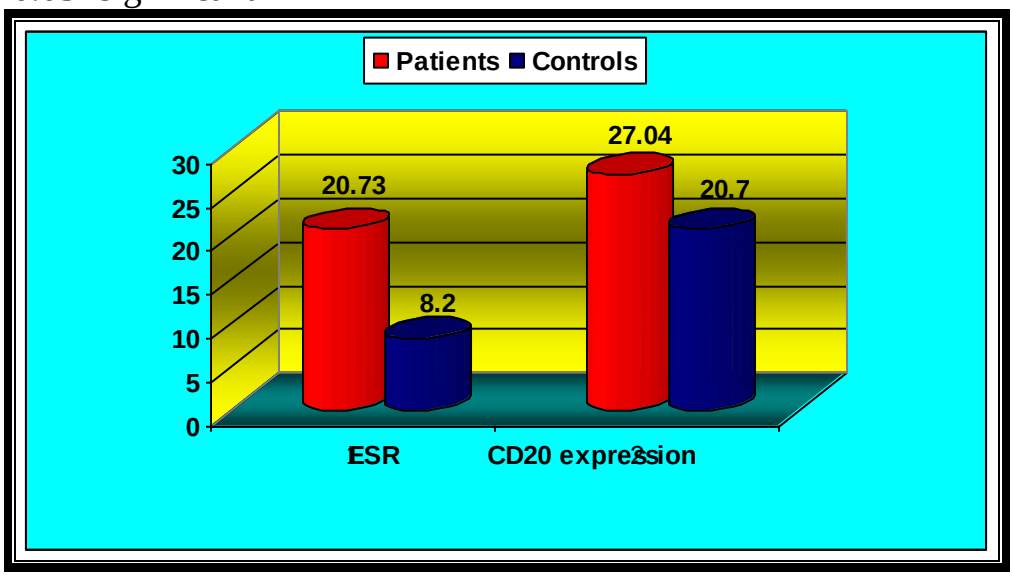

Figure 8: Comparison between case and control groups as regards ESR and CD20 expression.

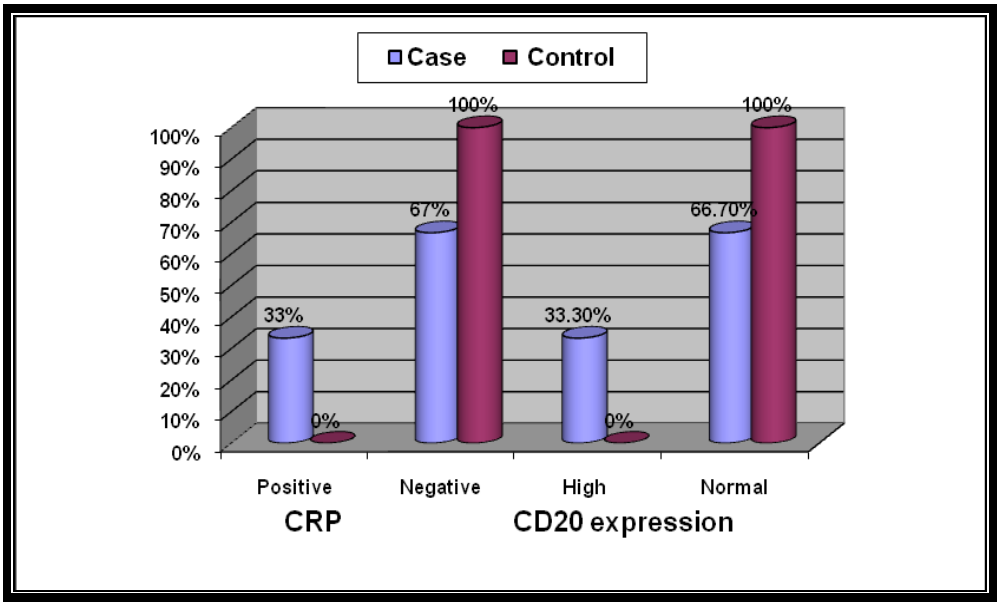

Figure 9: Comparison between case and control groups as regards CRP and CD20 expression.

Table (5) and figures (8 & 9) show that our patients had mean ESR and CD20 expression significantly higher than those of the controls and that 33.3% of them had positive CRP and high CD20 expression while all the controls had normal CRP & CD20 expression.

Table 6: Pearson correlation between CD20 level and different parameters.

	CD20 level	
	Correlation coefficient (r)	**P value**
Age	- 0.453	**<0.05 S**
Hb	- 0.657	**<0.001 HS**
Platlets	- 0.234	>0.05 NS
WBC's	- 0.150	>0.05 NS
Staff	- 0.297	>0.05 NS
Segmental	+ 0.131	>0.05 NS
Lymphocytes	- 0.270	>0.05 NS
Eosinophils	+ 0.486	**< 0.01 HS**
Monocytes	+ 0.326	>0.05 NS
Basophils	+ 0.092	>0.05 NS
Total IgE	+ 0.320	>0.05 NS
ESR	+ 0.081	>0.05 NS

Table (6) shows that CD20 expression is significantly negatively correlated to age and heamoglobin level and positively correlated to the eosinophil count.

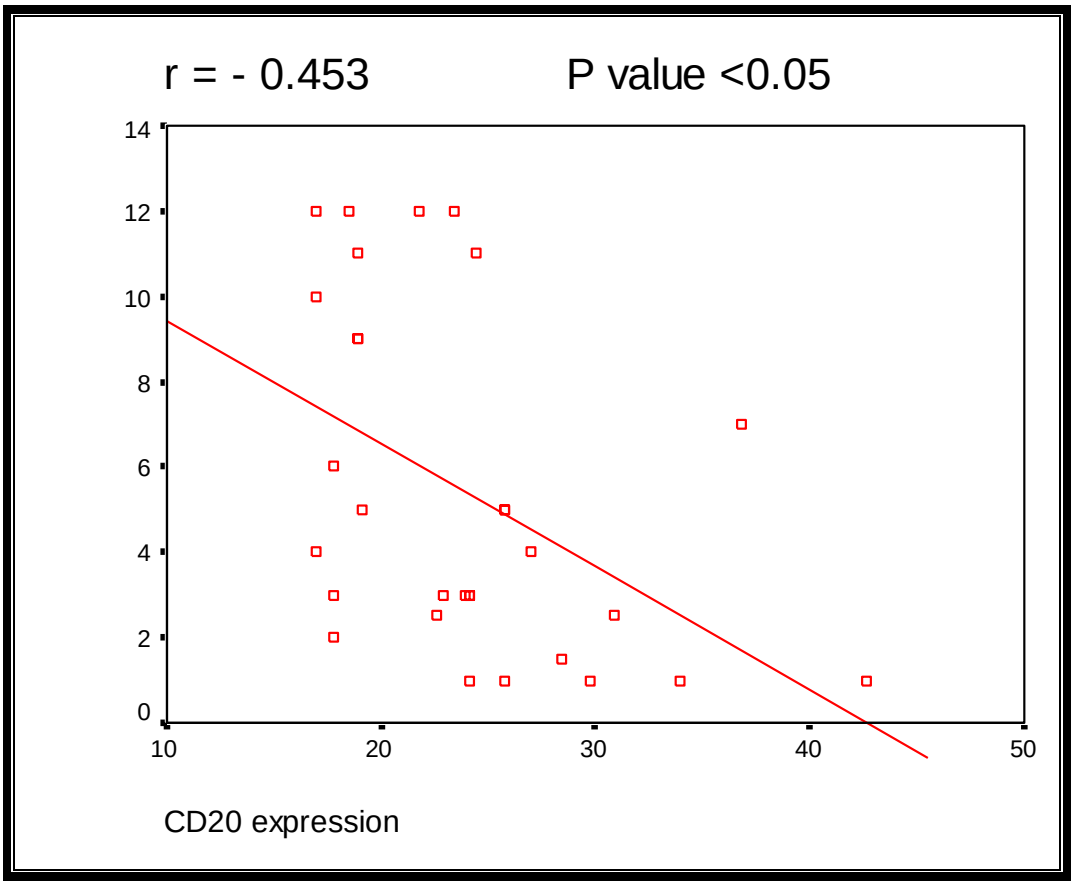

Figure 10: Correlation between CD20 expression and age.

Figure (10) shows that CD20 expression is significantly negatively correlated to age.

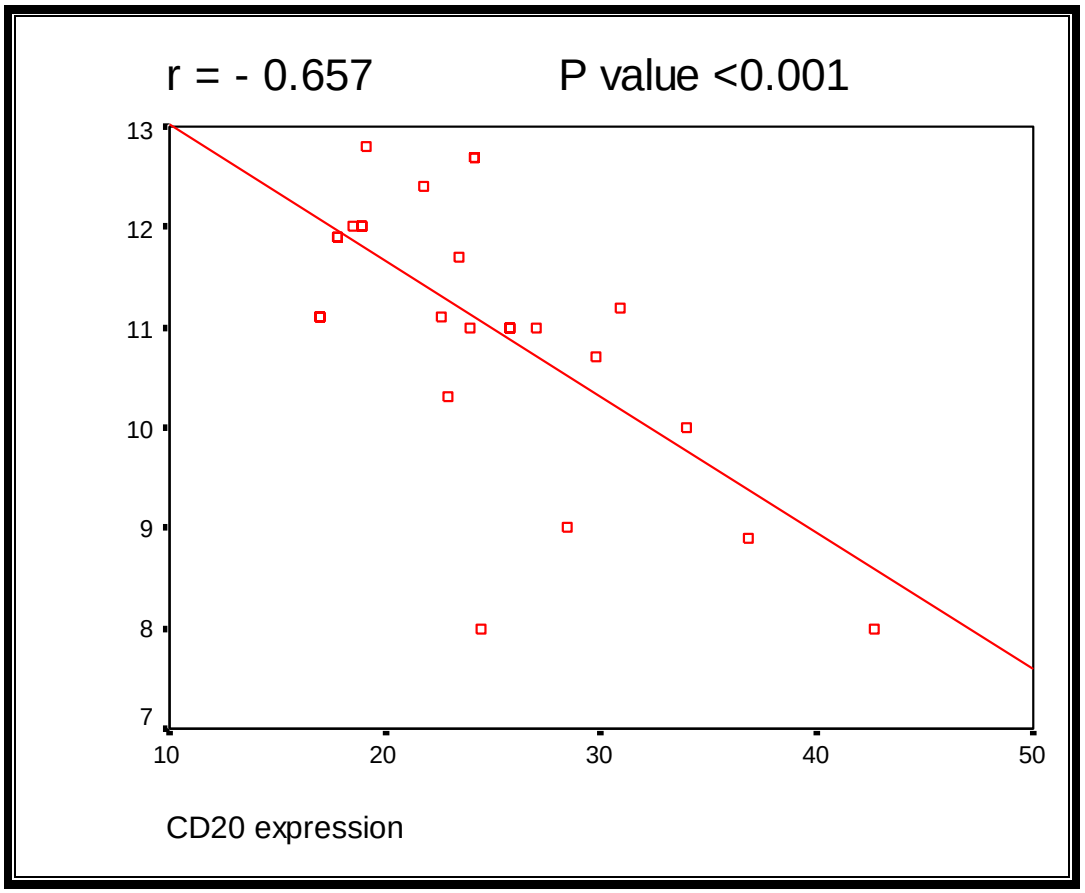

Figure 11: Correlation between CD20 expression and Hb level.

Figure (11) shows a significant negative correlation between CD20 expression and hemoglobin concentration.

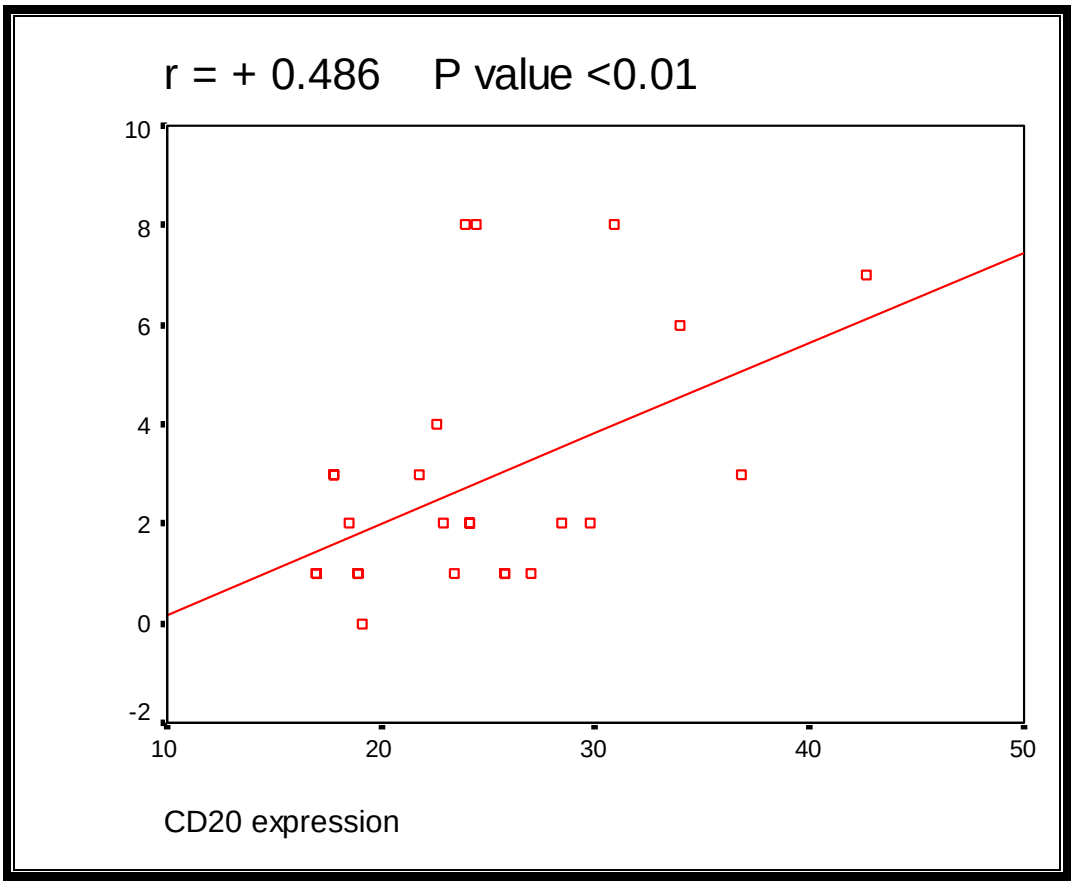

Figure 12: Correlation between CD20 expression and eosinophil count.

Figure (12) shows a significant positive correlation between CD20 expression and the eosinophil count.