

## Results

**Table (1) : Comparison between asthmatic group and control as regard eosinophils in nasal smear.**

	Atopic n = 34	Intrinsic n = 16	Control n = 20
Range	3-26	1-18	1-4
$\bar{x}$	14.50	7.13	2.40
$\pm$ SD	4.11	6.33	1.05

$P < 0.05$  = significant

$P > 0.05$  = Non significant

Atopic versus control	$t = 12.86$	$P < 0.001$
Intrinsic versus control	$t = 3.29$	$P < 0.01$
Atopic versus intrinsic	$t = 4.95$	$P < 0.001$

Table1. : Shows comparison between asthmatic group and control as regards eosinophils in nasal smear.

The mean of eosinophils for atopic, Intrinsic and - control group was 14.5, 7.13, and 2.4 respectively.

There was singinificant difference between each of the studied groups and control, as Eosinophils increase in nasal Smear of asthmatic patients.

**Table (2) : Comparison between asthmatic group and control as regard lymphocytes in nasal smear.**

	Atopic n = 34	Intrinsic n = 16	Control n = 20
Range	30-80	10-80	15-45
$\bar{x}$	62.06	42.25	28.65
$\pm$ SD	10.16	22.24	9.66

Atopic versus control       $t = 11.88$        $P < 0.001$   
 Intrinsic versus control       $t = 2.47$        $P < 0.05$   
 Atopic versus intrinsic       $t = 4.35$        $P < 0.001$

Table 2. : Shows comparison between asthmatic group and control as regards lymphocytes in nasal smear.

There is significant difference between the 3 groups , as lymphocytes increase in atopic asthmatic and intrinsic patients, but the increase in atopic is much more than Intrinsic asthmatic patients as the mean is 62. 6, 42. 25. and 28. 56 respectively.

**Table ( 3 ) : Comparison between asthmatic group and control as regard segmental cells in nasal smear.**

	Atopic n = 34	Intrinsic n = 16	Control n = 20
Range	2-30	3.77	30.55
$\bar{x}$	21.91	14.25	40.95
$\pm$ SD	5.79	28.94	6.38

Atopic versus control	t = 16.55	P < 0.001
Intrinsic versus control	t = 0.05	P > 0.05
Atopic versus intrinsic	t = 5.54	P < 0.001

Table 3.: Shows comparison between asthmatic group and control as regards segmental cells in nasal smear.

there is significant difference between atopic asthmatic group and control group also there is significant difference between atopic and intrinsic asthmatics, but no significant difference between intrinsic asthmatic group and control group, therefore segmental cells increase in nasal smear of atopic asthmatic patients.

**Table ( 4 ) : correlation between lymphocytes, eosinophils , and segmental cells in nasal cytology smear.**

	lymphocytes and eosinophils	lymphocytes and segmental cells	eosinophils and segmental cells
Atopic n = 34 r P	0.025 <0.05	-0.695 <0.001	-0.180 >0.001
Antrinsic n = 16 r P	0.906 <0.001	-0.966 <0.001	-0.946 <0.001

Table 4.: Shows correlation between lymphocytes, eosinophils, and segmental cells in nasal cytology smear.

There is significant positive correlation between lymphocytes and eosinophils in atopic asthmatic and intrinsic group as when Eosinophils increase in nasal smear , lymphocytes also increase, but the increase in the absolute number of Eosinophils and lymphocytes is much more than intrinsic asthmatic group and there is no increase in control group .

also table 4 shows, there is negative significant correlation between lymphocytes and segmental cells in atopic and intrinsic asthmatic group as when lymphocytes in the nasal smear increase, the segmental cells decrease. there is no significant correlation between eosinophils and segmental cells ( $P > 0.05$ ) in atopic asthmatic group, but there is significant negative correlation between eosinophils and segmental cells in intrinsic asthmatic group ( $P < 0.001$ ).

**Table (5) : Comparison between asthmatic group and control as regard eosinophils in blood.**

	Atopic n = 34	Intrinsic n = 16	Control n = 20
Range	2-8	1-9	1-3
$\bar{x}$	4.79	3.25	1.95
$\pm$ SD	1.75	2.21	0.69

Atopic versus control	t = 6.92	P < 0.001
Intrinsic versus control	t = 2.67	P < 0.05
Atopic versus intrinsic	t = 2.50	P < 0.05

Table 5.: Shows comparison between asthmatic group and control as regards eosinophils in blood.

There is significant difference between eosinophils in peripheral blood of the 3 groups as the mean for eosinophils in peripheral blood is 4.79, 3.25 and 1.95 respectively

**Table (6) : Comparison between asthmatic group and control as regards segmental cells in blood.**

	Atopic n = 34	Intrinsic n = 16	Control n = 20
Range	35-68	50-70	55-67
$\bar{x}$	53.18	60.06	60.35
$\pm$ SD	8.22	7.35	3.76

Atopic versus control	t = 3.67	P < 0.001
Intrinsic versus control	t = 0.15	P > 0.05
Atopic versus intrinsic	t = 2.85	P < 0.01

Table 6.: Shows comparison between asthmatic group and control as regards segmental cells in blood .

There is significant difference between a topica asthmatic and control ( $P < 0.001$ ) and there is significant difference between atopic and intrinsic asthmatic group ( $P < 0.01$ ) as the absolute number of segmented cells in atopic asthmatic increases than intrinsic asthmatic patients, but there is no significant difference between intrinsic asthmatic group and control.

**Table ( 7) : Comparison between asthmatic group and control as regards lymphocytes in blood.**

	Atopic n = 34	Intrinsic n = 16	Control n = 20
Range	10-52	18-33	15-32
$\bar{x}$	26.59	25.69	23.20
$\pm$ SD	8.98	5.49	4.75

Atopic versus control       $t = 1.56$        $P > 0.05$   
 Intrinsic versus control       $t = 1.46$        $P > 0.05$   
 Atopic versus intrinsic       $t = 0.37$        $P > 0.05$

Table 7.: Shows comparison between asthmatic group and control as regards lymphocytes in blood.

There is no significant difference between lymphocytes in the 3 groups. ( $P > 0.05$ ).

**Table (8) : Comparison between all asthmatic group and control as regards eosinophils in nasal smear.**

	Asthmatic n = 50	Control n = 20
Range	1-26	1-4
$\bar{x}$	12.14	2.40
$\pm$ SD	5.98	1.05
t	7.21	
p	<0.001	

Table.8: Shows comparison between asthmatic group and control as regards eosinophils in nasal smear.

There is significant difference between the two groups, as the eosinophils in nasal smear increases in asthmatic patients ., also the mean is 12. 14 and 2.4. in asthmatic and control respectively.



**Table (9) : Comparison between all asthmatic group and control as regards segmental cells in nasal smear.**

	Asthmatic n = 50	Control n = 20
Range	2-77	30-55
$\bar{x}$	21.98	40.95
$\pm$ SD	2139	6.38
t	3.88	
p	<0.001	

Table 9.: Shows comparison between all asthmatic group and control as regards segmental cells in nasal smear.

There is significant difference between asthmatic and control group (  $P < 0.001$  )  
also there is increase in the absolute number of segmental cells in nasal smear of asthmatic patients.

**Table (10) : Comparison between all asthmatic group and control as regards lymphocytes in nasal smear.**

	Asthmatic n = 50	Control n = 20
Range	10-80	15-45
$\bar{x}$	55.72	28.65
$\pm$ SD	17.55	9.66
t	6.50	
p	<0.001	

Table 10.: Shows comparison between all asthmatic and control as regards lymphocytes in nasal smear there is significant difference between the two groups ( $P < 0.001$ ), as the lymphocytes increase in nasal smear of asthmatic patients and the mean is 55.72, 28.65 in asthmatic patients and Control respectively.

**Table (11) : Comparison between all asthmatic group and control as regards eosinophils in blood.**

	Asthmatic n = 50	Control n = 20
Range	1-9	1-3
$\bar{x}$	4.30	1.95
$\pm$ SD	2.02	0.69
t	5.06	
p	<0.001	

Table 11: Shows, comparison between all asthmatics and control as regards eosinophils in blood. There is significant difference between the asthmatic patients and control group (  $P < 0.001$  )

**Table ( 12) : Comparison between all asthmatic group and control as regards segmental cells in blood.**

	Asthmatic n = 50	Control n = 20
Range	1035-70	55.67
$\bar{x}$	55.38	60.35
$\pm$ SD	8.52	3.76
t	2.50	
P	<0.05	

Table12.: Shows comparison between all asthmatic and control as regards segmental cells in blood .

There is significant difference between asthmatics and control group , as the absolute number of segmental cells in peripheral blood increases in asthmatic patients( $P < 0.05$ ).

**Table (13) : Comparison between all asthmatic group and control as regards lymphocytes in blood.**

	Asthmatic n = 50	Control n = 20
Range	10-25	15.32
$\bar{x}$	26.30	23.20
$\pm$ SD	7.98	4.75
t	1.62	
p	>0.05	

Table 13.: Shows comparison between all asthmatics and control as regards lymphocytes in blood. There is no significant difference between the two groups ( $P>0.05$ ).

**Table (14) : Correlation between nasal cytology smear and blood differential cell count in asthmatic patients and control.**

	lymphocytes	Eosinophils	Segmental cells
Atopic n = 34 r P	0.565 <0.001	0.661 <0.001	0.648 <0.001
Intrinsic n = 16 r P	0.290 >0.05	0.818 <0.001	0.897 <0.001
Control n = 20 r P	0.405 >0.05	0.103 >0.05	-0.111 >0.05

Table 14.: Shows correlation between nasal cytology smear and blood differential cell count in asthmatic patients and control.

There is significant positive correlation between lymphocytes, eosinophils and segmental cells in nasal smear and blood of atopic group . but no significant correlation between them in control group. Whereas in intrinsic group , lymphocytes show no significant correlation, in contrast to eosinophils and segmental cells which they show positive significant correlation.