Table (1): classification of cases according to age:

	No	Range	Mean	Std. Deviation
Age (years)	20	42-74	57.1500	8.79159

Table (2): classification of cases according to sex:

	No	%
Males	12	60
females	8	40
Total	20	100.0

Figure (1):classification of cases according sex

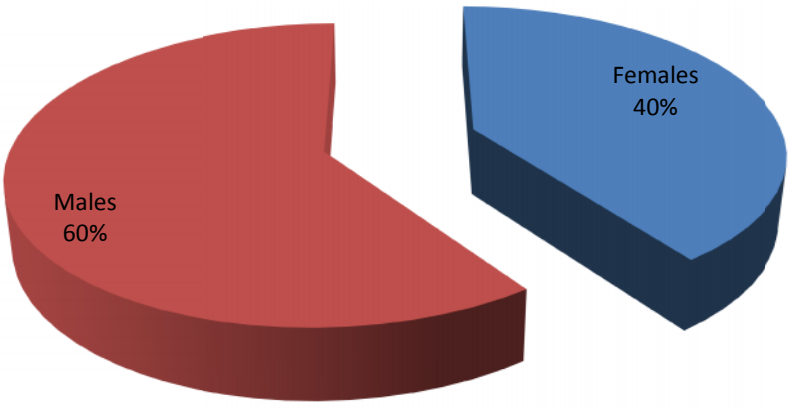


Table (3): classification of cases according to smoking:

History of smoking	No	%
Smokers	11	55
Non smokers	9	45
Total	20	100.0

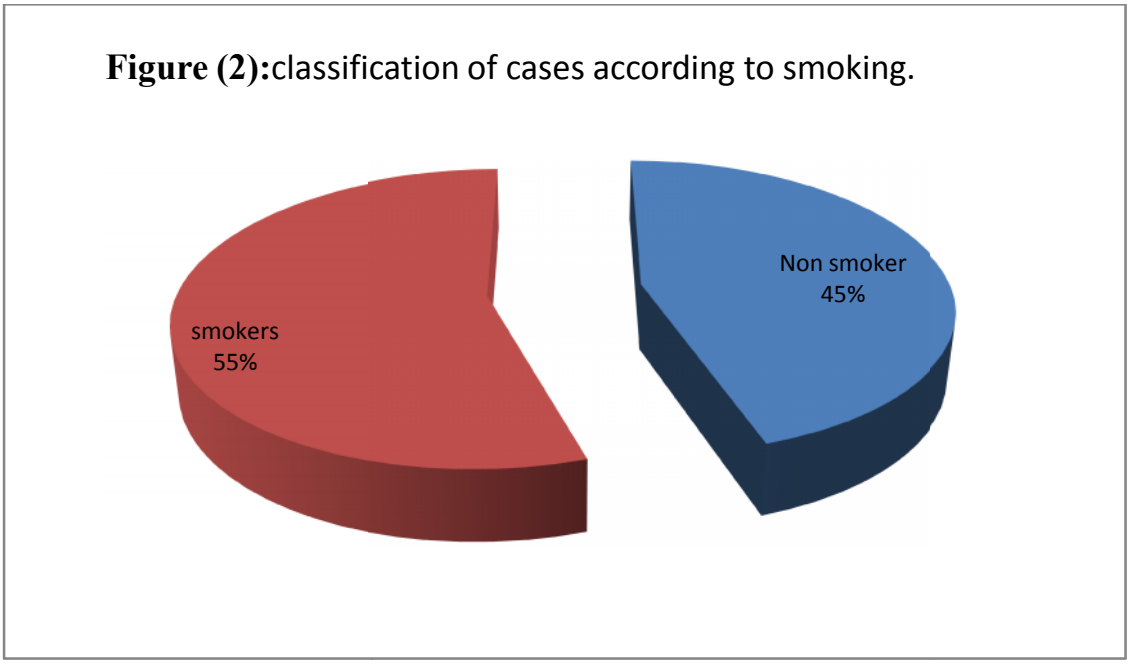


Table (4): classification of cases according to Laboratory findings**:**

Laboratory findings	Range	Mean	Std. Deviation
Hb %	9.1-15	11.60	1.930
ESR (mm/hour)	50-120	98.75	22.117
Urea (mg/dl)	25-59	39.55	8.140
Creatinine (mg/dl)	.60-1.7	1.177	.3481
ALT (IU/l)	16-45	28.15	8.048
AST (IU/l)	22-47	31.35	6.823
PT (second)	12-17	13.9	1.334

Table (5): classification of cases according to chest x-ray findings:

X-Ray findings	No	%
bilateral minimal pleural effusion	1	5
Blunting Rt. CP angle	2	10
Loss of Vol. of Lt. lung	1	5
Lt. hilar opacity	2	10
Lt. lower zone opacity	1	5
Lt. side pleural effusion	2	10
Lt. upper lung zone opacity	4	20
mediastinal widening	2	10
pleural thickening	1	5
Pulmonary Nodules	2	10
Rt. Hilar opacity	4	20
Rt. Lower lung Zone opacity	2	10
Rt. Para cardiac opacity	2	10
Rt. upper lung Zone opacity	3	15

Table (6): classification of cases according to CT findings**:**

CT	No	%
Hilar mass	7	35
Parenchymal lesions	14	70
Pleural effusion	5	25
Bronchial narrowing/obstruction	3	15
lymphadenopathy	12	60
Mediastinal mass	2	10

Table (7): classification of cases according to Bronchoscopic findings**:**

Bronchoscopic findings	No	%
Exophytic mass lesion	7	35
Submucosal infiltration	7	35
Peribronchial infiltration	9	45
lymphadenopathy	12	60

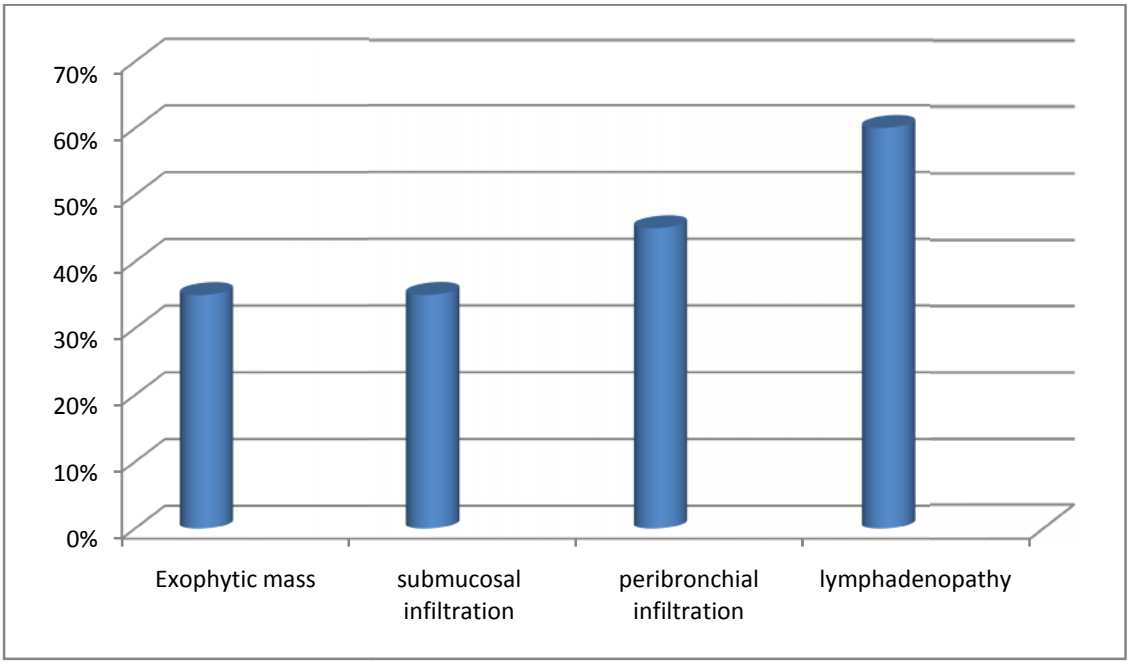
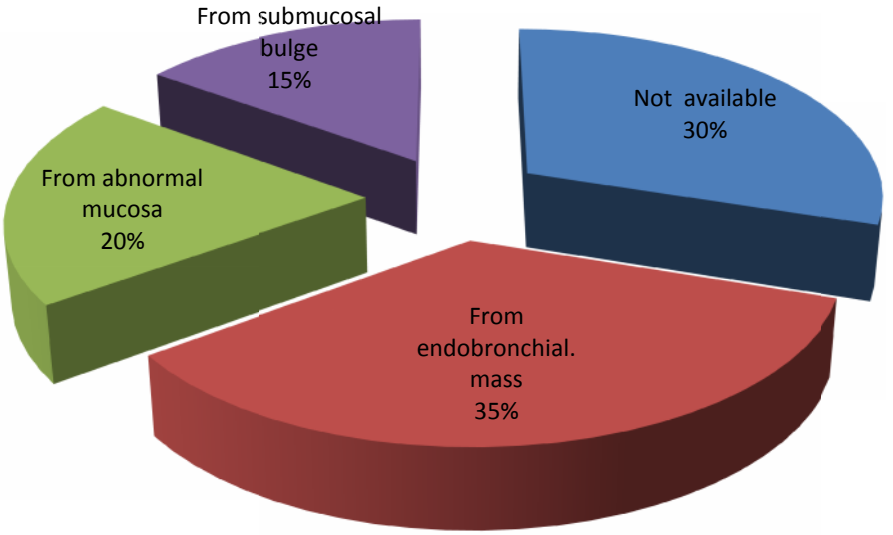


Figure (3): classification of cases according to Bronchoscopic findings.

Table (8): classification of cases according to Bronchoscopic site of Forceps biopsy:

Site of forceps biopsy	No	%
Not available*	6	30.0
From endobronchial. mass	7	35.0
From abnormal mucosa	4	20.0
From submucosal bulge	3	15.0
Total	20	100.0

*no evidence of endobronchial lesions to be biopsied.



Figure(4): Bronchoscopic site of Forceps biopsy.

Table (9): classification of cases according to bronchoscopic site of TBNA:

bronchoscopic Site of TBNA	No	%
From submucosal bulge	3	15.0
From external Compression	5	25.0
From lymph nodes only	10	50.0
From both external compression and lymph nodes	2	10.0
From exophytic mass lesion	7	35.0

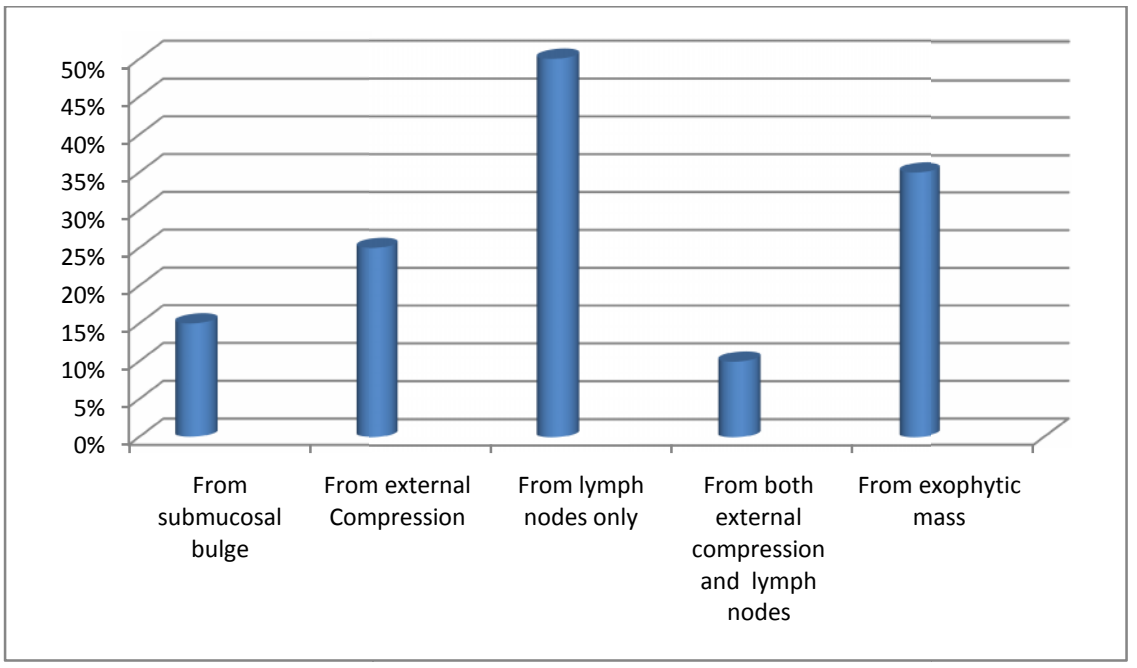


Figure (5): bronchoscopic site of TBNA.

Table (10): Pathological diagnosis by TBNA:

Pathological diagnosis	No	%
Positive for malignancy	17	85
False Negative for malignancy	3	15
Total	20	100

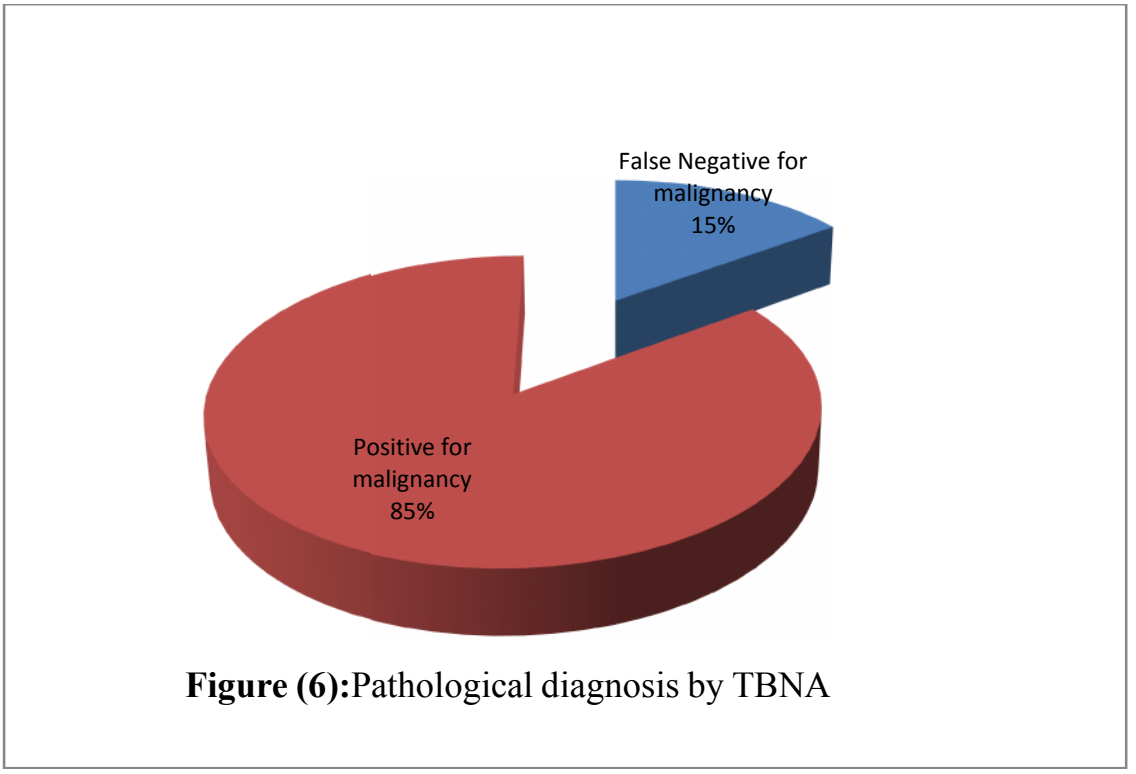


Figure (6): Pathological diagnosis by TBNA

Table (11): Histopathological diagnosis of cases by TBNA:

Histopathological diagnosis	No	%
Adenocarcinoma	4	20.0
Adenosquamous Carcinoma	2	10.0
NHL (lymphoblastic T-Cell lymphoma)	1	5.0
Small cell carcinoma	2	10.0
Squamous cell carcinoma	5	25.0
Undifferentiated Carcinoma	1	5.0
Undifferentiated Large Cell Carcinoma	2	10.0
Hyperblastic Epithelium	1	5.0
Lymphocytic infiltration.	1	5.0
Inadequate biopsy	1	5.0
Total	20	100.0

Table (12): Pathological diagnosis of cases with false negative TBNA:

Pathological diagnosis by TBNA	Pathological diagnosis by other diagnostic methods	No	%
Lymphocytic infiltration	Adenocarcinoma (CT guided biopsy)	1	5
Hyperblastic epithelium	Adenocarcinoma (Pleural fluid cytology)	1	5
Inadequate biopsy	Squamous cell carcinoma (forceps biopsy)	1	5
Total		3	15

Table (13): Pathological diagnosis of cases by Forceps biopsy:

Pathological diagnosis	No	%
Positive for malignancy	9	45.0
False Negative for malignancy	5	25.0
Not available	6	30.0
Total	20	100.0

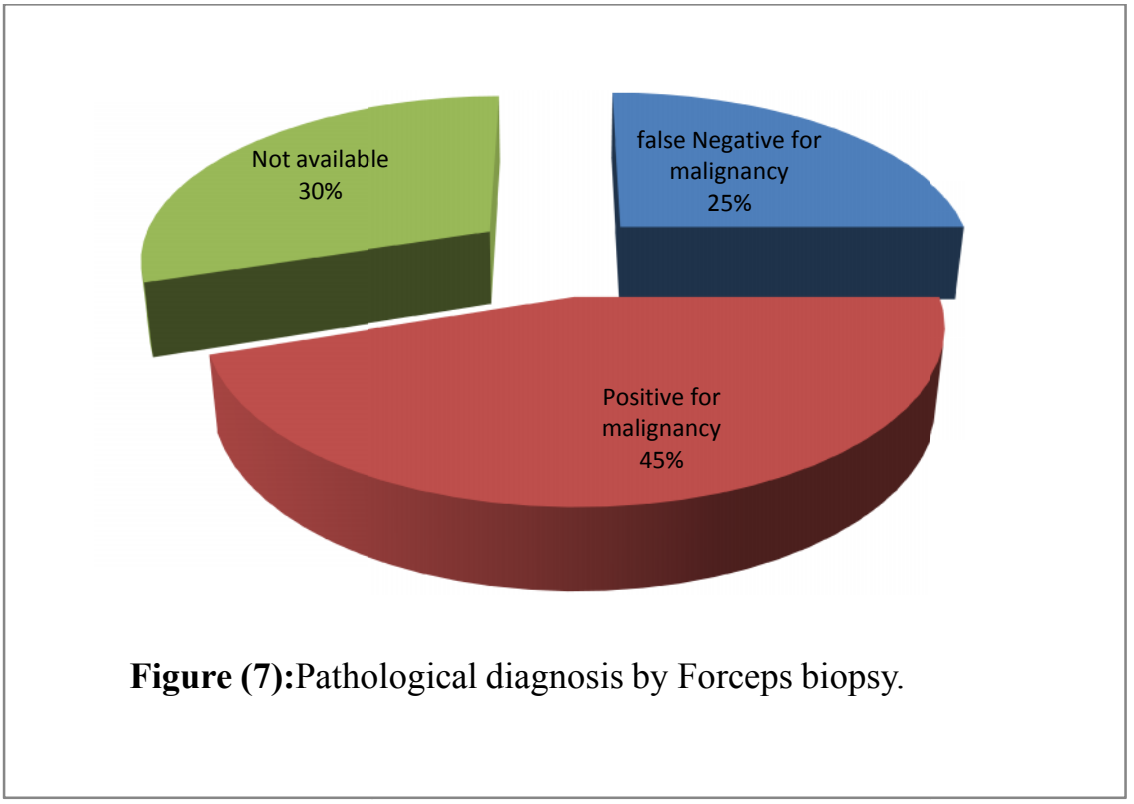


Figure (7): Pathological diagnosis by Forceps biopsy.

Table (14): Pathological diagnosis of cases by bronchial Washing:

	No	%
Positive for malignancy	6	30.0
False Negative for malignancy	14	70.0
Total	20	100.0

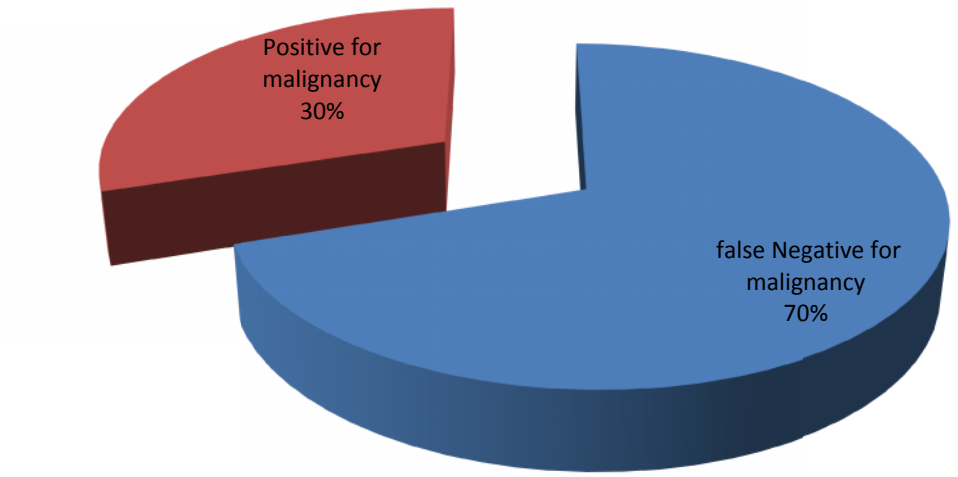


Figure (8): Pathological diagnosis by bronchial Washing.

Table (15): comparison of results of TBNA & bronchial washing:

	TBNA		Bronchial Washing		X^2	p	significance
	No	%	No	%			
Positive for malignancy	17	85	6	30.0	12.6	0.003	Highly significant
False negative for malignancy	3	15	14	70.0			

The table is showing highly significant difference between TBNA and bronchial washing as regarding pathological diagnosis of bronchogenic carcinoma.

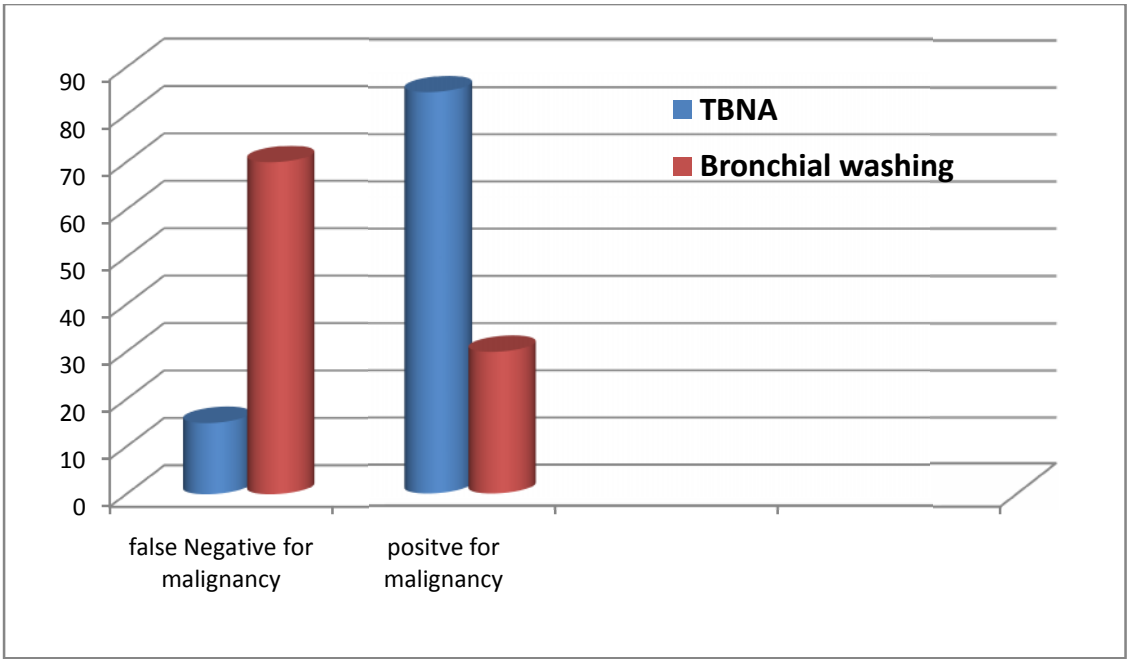


Figure (9): comparison of results of TBNA & bronchial washing.

Table (16): comparison of results of TBNA & forceps biopsy:

	TBNA		Forceps biopsy		X^2	p	Significance
	No	%	No	%			
Positive for malignancy	17	85	9	45.0	10.3	0.005	Highly significant
False Negative for malignancy	3	15	5	25.0			
Not available	0	0	6	30.0			

The table is showing highly significant difference between TBNA and forceps biopsy as regarding pathological diagnosis of bronchogenic carcinoma.

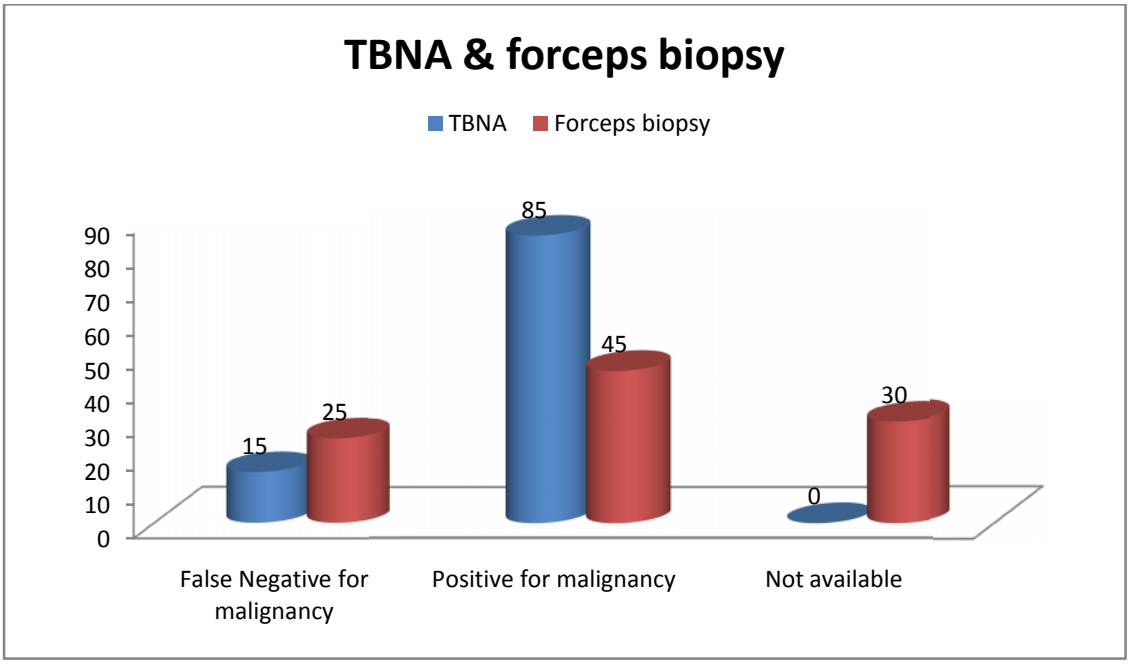


Figure (10): comparison of results of TBNA & forceps biopsy.

Table (17): value of combination of TBNA and other conventional diagnostic methods:

Diagnostic method	No	%
Bronchial Wash	**6**	**30**
Forceps biopsy	**9**	**45**
TBNA	**17**	**85**
TBNA + bronchial Wash	**18**	**90**
TBNA + Forceps biopsy	**18**	**90**
Bronchial Wash+ Forceps biopsy	**9**	**45**

Combining TBNA with both bronchial washing and forceps biopsy increased the diagnostic yield of case from 85% to 90%.

Table (18): Diagnostic yield of each method in relation to bronchoscopic findings:

Bronchoscopic finding	**Cases diagnosed by TBNA NO. (%)**	**Cases diagnosed by F.Biopsy NO. (%)**	**Cases diagnosed by B.Washing NO. (%)**
Peribronchial disease (no.9)	7 (77.7%)	1 (11.1%)	1 (11.1%)
Submucosal disease (no. 7)	6 (85.7%)	4 (57.1%)	1 (14.2%)
Exophytic mass lesion (no. 7)	5 (71.4%)	6 (85.7%)	6 (85.7%)
Lymph node enlargement (no.12)	11 (91.6%)	7 (58.3%)	6 (50%)