PART V

R E S U L T S

RESULTS

Sixty patients were involved in this study. All of the patients presented with respiratory distress. The total number of the material studied was twenty five (25) cases of bronchopneumonia, seven (7) cases of lobar pneumonia, ten (10) cases of pneumonia with effusion, six (6) cases of bronchiectasis, and twelve (12) cases of bronchiolitis. Sufferersfrom lobar pneumonia were futher classified into four (4) cases of right and three (3) cases of left lobar pneumonia.

According to age; sex, seasonal variation, presenting symptoms, elicited signs and radiological findings many data have been obtained and tabulated. The five tables illustrated here have also , further details especially in their symptomatology and signs items.

Tables (1&2) demonstrates the relation between age, sex and season and the incidence and prevalence of different pneumonias. All the resultsare shown in table(1-5) and histogram(1-3).

Age:

As much as five (5) patients presented in early infancy (first six months) and more than one third of the cases of bronchopneumonia are more than two years age twelve (12).

Sex

Affection of males is more than females was constantly and obviously noticed (thirty nine (39) cases)with the ratio of 1.8/1 in bronchiolitis, 2.4/1 in bronchopneumonia and 1.5/1 in effusion. Table No.1 and histogram(2) show the variation between male and female in these disease.

Season

Most of the cases thirty eight (38) illpatient 80% were presented in January and February i.e late winter and early spring. The presentation of patient suffering from bronchopneumonia were be as follows: (Five (5) patients),20% were presented in November,four (4) patients 16% were presented in December while seven (7) patients 28% were presented in January and nine (9) patients36% were presented in February(Table 2).

The presentation of patients suffering from right lobar pneumonia were two (2) patients 50% were presented in November one (1) patient 25% was presented in December, one (1) patient 25% was presented in January and no patient in February. In left pleural effusion only two (2) cases 66.67% were presented in Junuary and one (1) case 33.33% was presented in Feb.

In patients suffering from bronchiolitis there is increase in number of patients in January: four (4) cases 33.33% were reported.

Patients suffering from pleural effusion show increased representation in January and February, about 66.67% of cases were Rt. pleural effusion and 42.86% of cases were left pleural effusion.

In cases suffering from bronchiectasis the maximum incidence of the disease is at late winter (February): about 50%. Table (2) demonstrates these results.

Clinical picture:

Thirty two (32) cases of pneumonia reported in this study, twenty five (25) of cases 82% had bronchopneumonia and only seven (7) cases suffered from lobar pneumonia (Table No.1). Of all the cases of bronchopneumonia five (5) cases were below the age of first 6 months and twelve (12) cases were two years of age (45%). In cases of lobar pneumonia five (5) out of the seven (7) cases were above two years of age (Table No.1). High grade fever was noticed in seven (7) cases of bronchopneumonia and two (2) in lobar pneumonia. Severe distressing cough was presented in nine (9) cases of

bronchopneumonia and three (3) cases of lobar pneumonia. Out of all pneumonia, twenty seven (27) cases had wet cough. Haemoptysis was only reported in two (2) cases of pneumonia. In the group studied four (4) of the patients suffered pneumonia after measles, one (1) after whooping cough and two (2) on top of tuberculosis (Table No.3). All cases had respiratory distress with dyspnea: eleven (11) cases of them had respiratory rate about 60/min., five (5) cases showed cyanosis and sixteen (16) cases had audible grunting. Increased tactile vocal fremitus was detected in four (4) cases of lobar pneumonia, eighteen (18) cases of bronchopneumonia (Table 5a, $\bar{a}$). While bilateral crepitations were present in all cases of bronchopneumonia, only thirteen (13) cases had bronchial breathing in addition. Impaired note presented in three (3) cases of lobar pneumonia and five (5) cases of bronchopneumonia (Table 5a).

In twelve (12) patients of <u>bronchiolitis</u> (Table No.4)low grade fever (38°C) presented in ten (10) cases (85.8%). (One) case had high temperature (more than 38°C) and another one (1) case had normal temperature.The majority of cases, eleven (11) suffered from paroxysmal cough that has interrupted their sleep. All the cases were dyspneic.

About 60% of cases had upper respiratory catarrh of short duration preceeding the illness (Table No.3). All of them suffered respiratory distress with cyanosis in seven (7) cases and audible grunting in four (4) cases. Marked hyperresonant note was present in eight(8) cases. All of the cases revealed crepitations and rhonchi with two (2) cases of prolonged expiration in addition (Table No.5b).

Ten (10) cases of pleural effusion on top of pneumonia were also included in this study (Table No.1). Out of these patients, six (6) cases had high fever, three (3) suffered distressing cough but all had expectoration (Table No. 4). All of the cases showed rapid laboured respiration with cyanosis in nine (9) cases (Table No.5a). Four (4) of these cases followed an attack of measles (Table No.3). While seven (7) cases had manifestations of effusion of left side with bulging of intercostal spaces, diminished tactile vocal fremitus on the left side and shifting of the trachea and heart apex to the right, three only showed the same manifestation on the right side (Table No. 5a).

Bronchiectasis:

Six (6) cases 10% were recorded. Most of the cases were above 24 months five (5) cases. Males are affected more than females.There was underlying disease as whooping cough in two (2) cases and measles in two (2) cases. There was mild fever in five (5) cases, high fever in one (1) case. There was severe cough in four (4) cases, positive expectoration in five (5) cases and haemoptysis in one (1) case. Dyspnea was found in most cases. Chest signs revealed dyspnea,decreased air entry, wheezes and rhonchi. In some patients three (3) cases there were crepitations . There was tachypnea, grunting, in two (2) cases increased T.V.F. and hyperesonence in three (3) cases.

Regarding lastly the radiological aspects of the groups studied. In bronchiolitis : there is bilateral diffuse emphysema in all the cases. Two (2) cases showed as well segmental lobular consolidation. While in the twenty five (25) cases diagnosed clinically as bronchopneumonia, sixteen (16) cases showed nodular opacities, scattered on both sides in nine (9) cases.

However, two (2) cases revealed radiological picture of tuberculosis, one (1) with extensive milliary shadows and one (1) with patches of consolidation and hilar strands. Out of these sixteen (16) cases, two cases had also evidence of collapse with emphysematous bullae or pneumatocele. In the other nine (9) cases of bronchopneumonia, the radiological findings were increased bronchovascular markings of the lung with four(4) cases showing also enlarged hilar shadows. Out of all the cases of bronchopneumonia one (1) case showed underlying chronic lung disease.

Roentogen examination in lobar pneumonia revealed lobar consolidation in the seven (7) cases of lobar pneumonia with abscess formation in one (1) case. The upper lobe was affected in two (2) cases on the right side, while the lower lobe was affected in two (2) cases on the right side and three (3) cases on the left side.

The radiological opacities cleared completely in five (5) cases after two weeks and after four weeks in two (2) cases.

Radiological evidence of massive effusion presented in six (6) cases, The lung showed evidence of expansion after 10 days in four (4) cases, and after thirteen (13) days in six (6) cases.

releived after thirteen (13) days. The residual pleural thickening noticed after treatment usually takes some time to disappear leaving completely radiologically clear chest. In two (2) cases it disappeared after two months, in another six (6) cases it lasted two and half months and in two (2) cases it cleared in three and half months.

Radiological finding of bronchiectasis revealed honey coomb appearance at the basal parts of the lungs with evidence of pneumonic changes.

Table (1)

Classification of subjects with respiratory distress included in the study

Group of patients	No	%	Age in month				Sex	
			below 6M	from 6:12M	from 12:24M	Above 24 M	male	female
Bn. pn	25	41,66%	5	5	3	12	17	8
Labor.pn Rt	4	6.67%	1	-	1	2	3	1
Labor.pn Lt	3	5%	-	-	-	3	2	1
Br. Lites	12	20%	8	3	1	-	7	5
Pl. eff Rt	3	5%	-	1	3	-	2	1
Pl. eff Lt	7	11.67%	-	-	2	4	4	3
Br. tasis	6	10%	-	-	1	5	4	2
Total	60	100%	14	9	11	26	39	21

Br. pn. = Bronchopneumonia
Lobar.pn = Lobar pneumonia
Br. litis = Bronchiolitis
Pl. eff = Pleural effusion
Br. tasis = Bronchiectasis
Rt. = Right
Lt. = Left
M. = Month

Fig. 1 : Different groups of patients suffering from respiratory disress

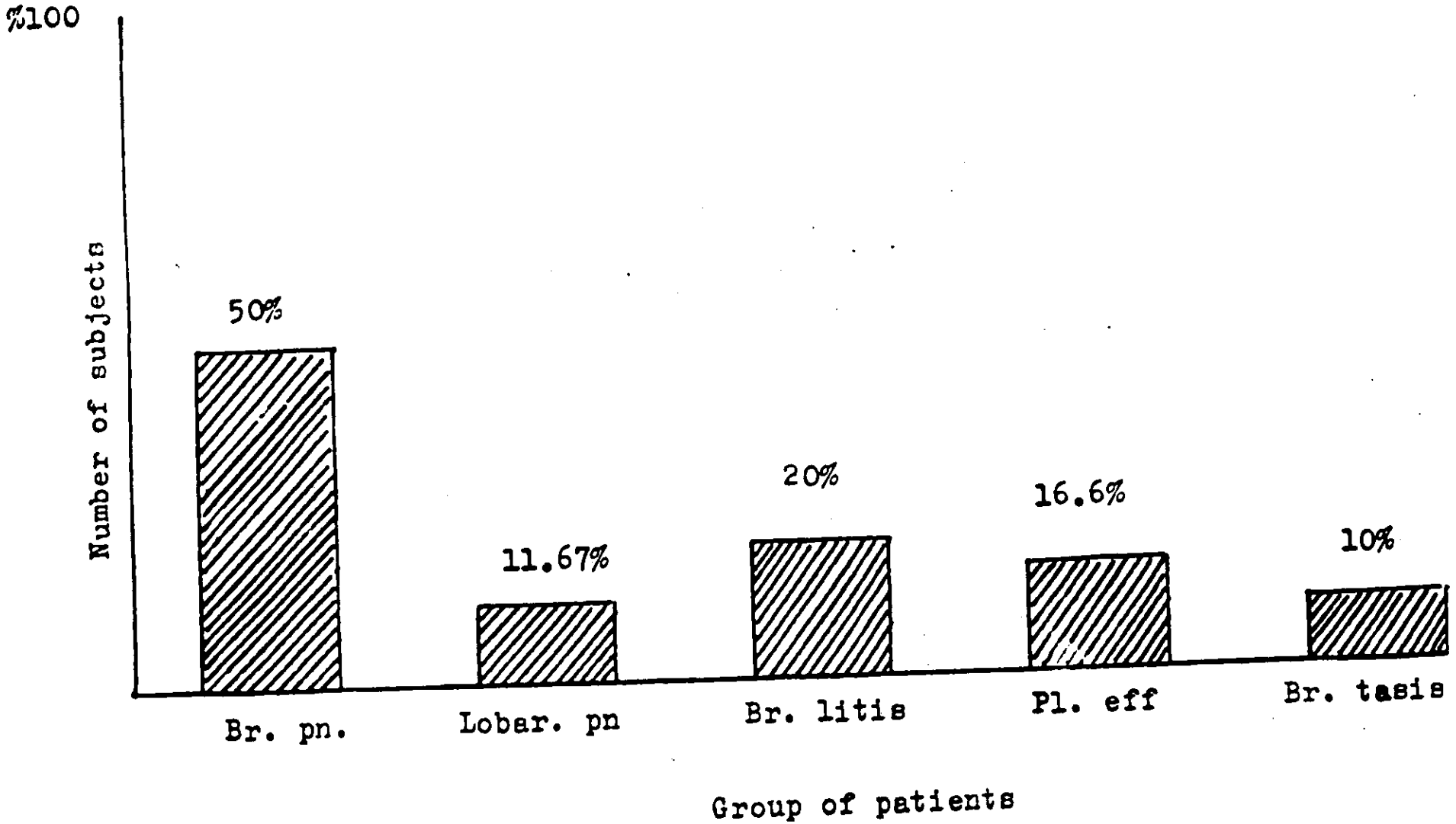
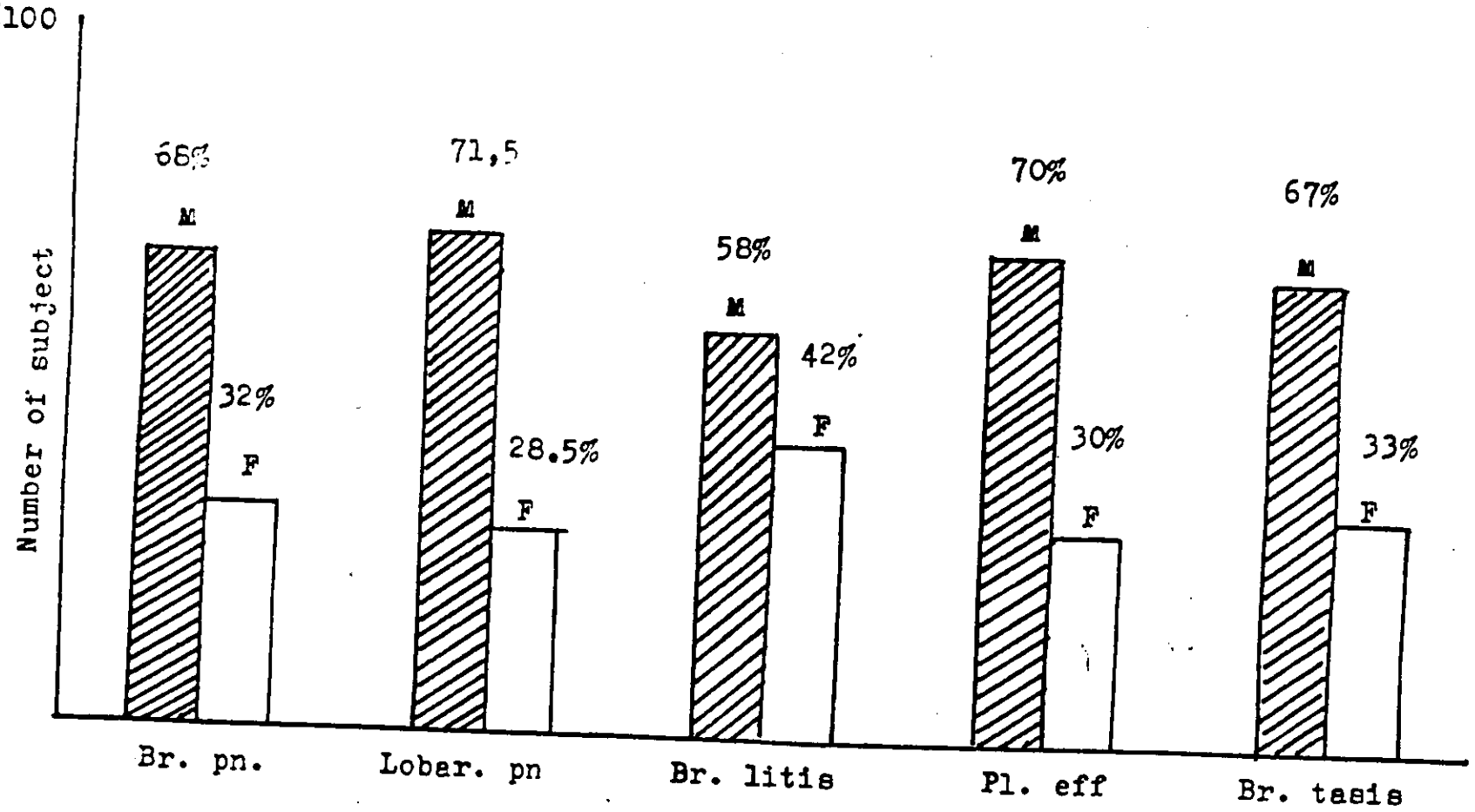


Fig. 2 : Sex distribution in patients included in the study



M : Male

F : Female

Table (2)

Distribution of patients with respiratory distress in the various months of the work

Group of patients	No	Nov.	%	Dec.	%	Jan	%	Feb.	%
Br. pn.	25	5	20%	4	16%	7	28%	9	36%
Lobar pn Rt	4	2	50%	1	25%	1	25%	0	0%
Lobar pn Lt	3	0	0%	0	0%	2	66.67%	1	33.33%
Br. lites	12	2	16.67%	3	25%	4	33.33%	3	25%
Pl. eff Rt	3	0	0%	0	0%	1	33.33%	2	66.67%
Pl. eff Lt	7	2	28.57	1	14.29%	1	14.29%	3	42.86%
Bronchiectasis	6	1	16.67%	1	16.67%	1	16.67%	3	50%
Total	60	12	20%	10	16.67%	17	18.33%	21	35%

Nov. = November
Dec. = December
Jan. = January
Feb. = February

Fig. 3: Distribution of patients to the months during which the study were carried on

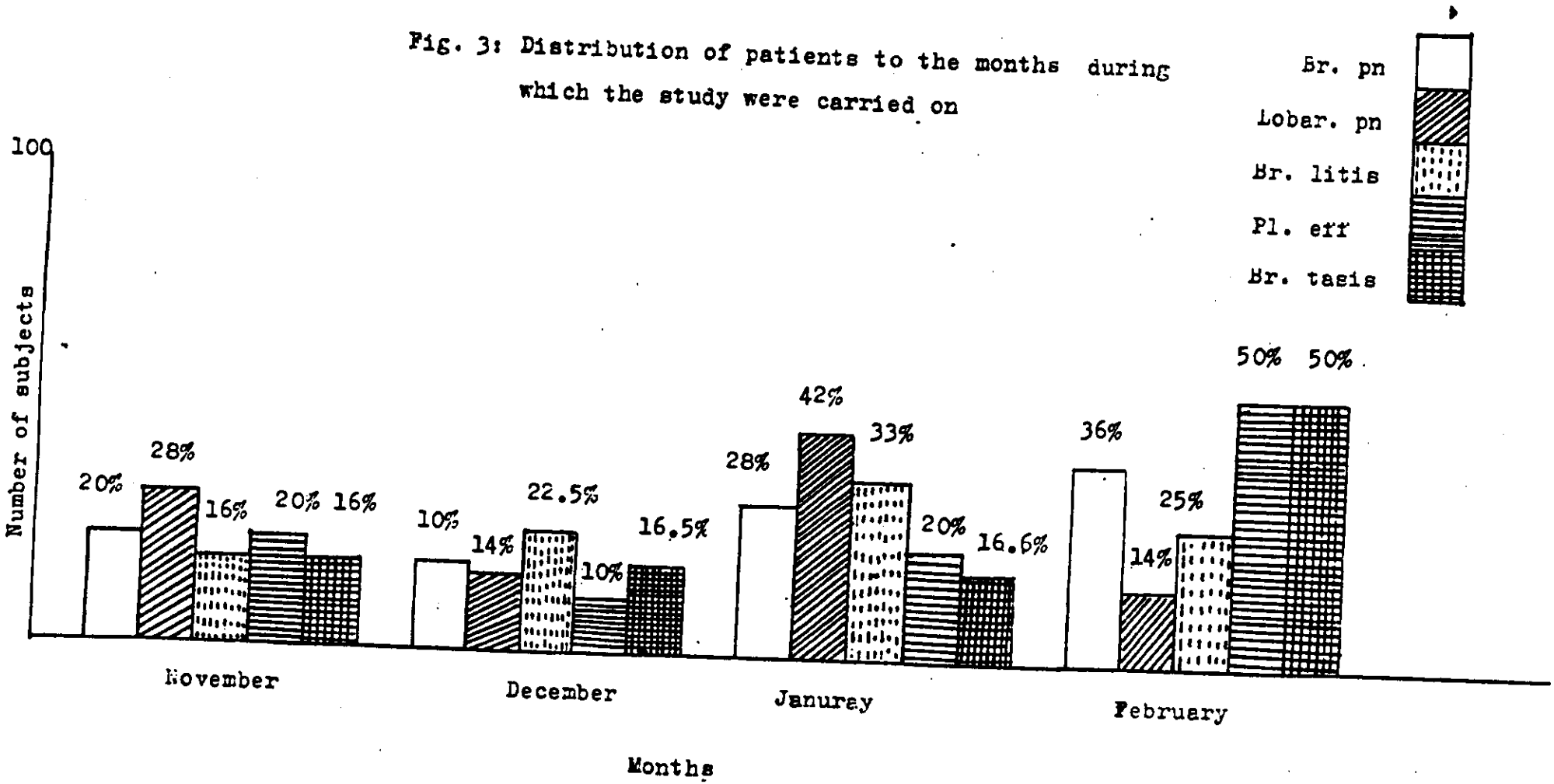


Table (3)

Underlying conditions in the patient's history in the different-groups of subjects.

Group of patients		U.R.C	Measles	T.B	W.C
Br. pn		7	2	2	1
Lobar Pn.	Rt	5	1	-	-
	Lt	2	1	-	-
Br. lites		7	-	-	-
Pl. eff	Rt	-	1	-	-
	Lt	1	3	-	-
Bronchiectasis		-	2	-	2
Total		22	10	2	3

U.R.C = Upper respiratory cattarrh
T. B = Tuberculosis
W. C = Whooping cough

Table (4)

Symptoms of chest examination in different groups of patients

Group of patients	No	%	F.			Cgh.		Expct.		H.ptsis		Dyspn.		Others		No others
			No	Mild	high	moder-ate	Sev-ere	No	pres-ent	No	pres-ent	No	pres-ent	Vomit-ing	Ref-use to suck	
Br. pn	25	41.66%	-	18	7	16	9	4	21	24	1	-	25	19	4	2
Lobar pn Rt	4	6.67%	-	3	1	3	1	1	3	3	1	-	4	2	1	1
Lobar pn Lt	3	5%	-	2	1	1	2	-	3	3	-	-	3	1	1	1
Br. litis	12	20%	1	10	1	2	10	11	1	12	-	-	12	2	6	4
Pl.eff Rt	3	5%	-	1	2	2	1	-	3	3	-	-	3	-	1	2
Pl.eff Lt	7	11.67%	-	3	4	5	2	-	7	7	-	-	7	-	2	5
Bronchie-ctasis	6	10%	-	5	1	2	4	1	5	5	1	-	6	1	-	5
Total	60	100%	1	42	17	31	29	17	43	57	3	-	60	25	15	20

F. = Fever Cgh. = Cough Expct = Expectoration Htysis = Hemoptysis. Dyspn = Dyspnea.

Table (5 a)

Physical sign and results of chest examination in different groups of patients

Group of patients		Signs of Respiratory Distress								Inspection		
	No	%	irrit.	Cynosis		Tchypn.		W. ala. n.	Gting	Subc. retr.	Inst. retr.	Bulging
				+	+++	+	+++					
Br.. Pn.	25	41.66%	2	2	3	18	7	25	16	20	18	-
Lobar Pn. Rt	4	6.67%	1	-	-	2	2	4	2	4	1	-
Lobar Pn. Lt	3	5%	1	-	-	1	2	3	2	3	2	-
Br.litis	12	20%	6	7	-	4	8	12	6	2	10	-
Pl.eff Rt	3	5%	-	1	2	1	4	3	1	-	-	3
Pl.eff Lt	7	11.67%	2	2	4	2	3	7	6	-	-	7
Br.Tasis	6	10%	2	1	-	2	2	2	2	2	1	-
Total	60	100%	14	13	9	30	28	56	35	31	32	10

W. alae. n. = Working alae nasi

Tchypn. = Tachypnea

Irrit. = Irritability

Gting. = Grunting

Subc. retr. = Subcostal retraction

Tchypn. = Tachypnea

\+ = Mild

\+++ = Severe