CHAPTER VIII

RESULTS

One hundred fifty three (153) patients were eligible for the study. There were one hundred (100) patients under the resistant pulmonary tuberculosis group (case) and fifty three (53) subjects in the control group. Of the one hundred (100) cases, sixty one (61%) are males and thirty nine (39%) are females. Fourteen (14%) of the patients under the case group are aged thirty (30) years and below and eighty six (86%) are beyond thirty (30) years old. In the control group, thirty nine (73.5%) are males and there are fourteen (26.5%) females; eleven (11) belong to the 30 year-old and below group and forty two (42) are within 31 to 87.

Forty seven percent (47%) of the patients with resistant pulmonary tuberculosis had positive smoking history while in the control group only 29 smoked. Only twenty one (21) of the cases drank alcohol, majority of whom consumed more than one bottle of beer for more than five years. Forty four (44%) patients in the resistant tuberculosis group had been vaccinated with BCG and only 21 (39.62%) in the control group had BCG scars. Forty two patients (30 cases and 12 control) have claimed history of exposure with patients who have been diagnosed to have pulmonary tuberculosis.

The records showed that among one hundred cases, fifty (50%) of them have had previously been diagnosed to have pulmonary tuberculosis and only 17 (32%) patients among the controls had a similar history. Of the 50 cases, 36 patients were compliant with the therapeutic regimen; 13 were non-compliant and one did not receive any therapy at all. Of the primary drugs for the treatment of pulmonary tuberculosis, isoniazid (INH) was the common drug for all resistant cases and 15 out of 17 patients in the control group were also on INH. The drug next commonly taken by patients in the case group was rifampicin, then ethambutol, pyrazinamide and the least used was streptomycin.

Another variable considered in the study was the presence of a concomitant disease(s). There were 74 (74%) patients in the resistant group who had illness(es) other than pulmonary tuberculosis, while 34 (64.15%) in the control group had other illness(es).

Stratification of the severity of tuberculosis was done based on radiologic findings as minimal, moderately advanced and far-advanced pulmonary tuberculosis. In the case or resistant group, 27%, 45%, and 28% were diagnosed as minimal, moderately advanced and far-advanced pulmonary tuberculosis respectively. Among the control group, twenty (37.7%) were labeled minimal case; twenty (37.7%) had moderately advanced pulmonary tuberculosis and thirteen (24.6%) fell into the far-advanced PTB category.

Culture and sensitivity test of sputum of one hundred cases revealed the following:

DRUG	RESISTANT	SENSITIVE
INH	50%	50%
RIF	34%	66%
EMB	58%	42%
SM	40%	60%

Culture and sensitivity test of sputum of fifty three (53) control patients gave the following result:

DRUG	RESISTANT	SENSITIVE
INH	0	100%
RIF	0	100%
EMB	0	100%
SM	0	100%

Thirty nine percent (39%) of the patients was resistant to a single drug; forty four (44%) was resistant to two (2) drugs; nine (9%) percent was resistant to three (3) drugs, and eight (8%) percent was resistant to all drugs.

TABLE 6:   SUMMARY OF DESCRIPTIVE ANALYSIS

VARIABLES (N=153)	CASE (N=100)	CONTROL (N=53)
Age		
≤ 30	14 (14%)	11 (20.75%)
31-87	86 (86%)	42 (79.25%)
Sex		
Male	61 (61%)	39 (73.50%)
Female	39 (39%)	14 (26.50%)
Smoking History	47 (47%)	29 (54.70%)
< 5 years	2	0
> 5 years	45	29
Alcohol Intake	21 (21%)	9 (16.98%)
Beer	20	9
Hard	1	0
Volume of alcohol		
≤ 1 bottle	6	1
> 1 bottle	15	8
Duration		
< 5 years	3	3
≥ 5 years	18	6
BCG	44 (44%)	21 (39.62%)
Exposure History	30 (30%)	12 (22.64%)
Previous History	50 (50%)	17 (32.00%)
Compliance	36 (72%)	14 (82.00%)
Non-compliant	13 (26%)	3 (18.00%)
No therapy	1 (2%)	0
Drugs previously taken		
INH	50 (100%)	15 (88%)
Rifampicin	44 (88%)	12 (71%)
Ethambutol	35 (70%)	12 (71%)
Streptomycin	4 (8%)	2 (12%)
Pyrazinamide	24 (48%)	7 (41%)
Concomitant Illness	74 (74%)	34 (64.15%)
Severity of Illness		
Minimal	27 (27%)	20 (38%)
Moderately advanced	45 (45%)	20 (38%)
Far advanced	28 (28%)	13 (24%)

After a descriptive analysis of the various variables was done, a univariate analysis to see the relationship between variables was performed. Using a chi-square test, the variables that gave a significant odds ratio were previous history of tuberculosis (OR = 2.12), previous treatment with rifampicin (OR = 2.68), INH (OR = 2.53) and pyrazinamide (OR = 2.08) and alcohol intake for more than five years (OR = 2.11).

To demonstrate the relationship between the tuberculous patient and the joint effects of the aforementioned variables, a stepwise logistic regression analysis using the BMDP was done. Previous history of tuberculosis, previous drug intake, namely rifampicin and INH gave significant p values. However, when INH was finally added to the model, only INH intake gave a significant p value of 0.025.

Summary of Stepwise Results

STEP NO.	TERM ENTERED	REMOVED	DF	LOG LIKELIHOOD	IMPROVEMENT CHI-SQUARE	P-VAL	GOODNESS OF FIT CHI-SQUARE	P-VAL
0				-98.714			150.975	0.025
1	inh		2	-95.022	7.384	0.025	143.590	0.055