

## BENIGN THORACIC CYSTS AND TUMOURS FOUND IN WEST MALAYSIAN PATIENTS

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This is a review of 42 patients who had innocent cysts or tumours removed from the Thorax during a period of nine years from January, 1959 to December, 1967. All the cysts and tumours have been proved histologically. Congenital lung cysts and bronchiectatic cysts have not been included in this series.

The population of West Malaysia totals approximately eight million and is composed of about 50% Malays, 37% Chinese, 11.2% Indians and 1.8% others. In addition there are 43 thousand Aborigines who live mainly in the jungle. 55% of the population is below the age of 21 years.

Table I shows the types of Cysts and Tumours that have been removed:—

TABLE I	
Classification	No.
Teratoma and Dermoid Cysts	9
Paratracheal Cysts	3
Neurogenic Tumours	11
Retrosternal Thyroids	5
Mesenchymal Tumours	8
Unclassified Tumours	6
Total	42

From this Table it will be seen that the Terato-Dermoid cysts and the Neurogenic Tumours form the majority of benign tumours found, and in this series are 47% of the total. This percentage is similar to that found in the series published by Burnett, Rosemond, and Bucher (1952), Harrington (1949), Key (1954), Morrison (1958), Peabody, Strug and Rives (1954), Ringertz and Lidholm (1956), Sabiston and Scott (1952), which varies between 41% and 53% of their benign cysts and tumours.

Table II shows that all these nine cysts occurred in the right side and that seven of them were found in females. It was also noted that seven of the total of nine were between the ages of thirteen and twenty seven years of age.

Seven of these patients had symptoms—cough, purulent sputum, small haemoptysis and intermittent fever; three of them had associated clubbing of the fingers.

Radiologically all of these cysts were lying anteriorly Figs. 1(a) & (b). All were treated by surgery, either by removal of the cyst alone or with the adherent adjacent lobe. One patient had to have a pneumonectomy (Table III).

Two of these patients were picked up on a routine M. M. R. and the other had an X-ray taken because of a cough and small haemoptysis. All cysts were removed surgically and were lined by bronchial epithelium (Table IV).

These tumours occurred in all races and on both sides of the chest, and were found in children and middle-aged patients. Radiologically four patients had a widened rib space adjacent to the tumour (Fig. 2). Nine of them were lying posteriorly and one tumour was lying in the right lower zone anteriorly, which is an unusual position Figs. 3(a) & (b). The remaining tumour was situated in the right upper lobe Figs. 4(a) & (b), which was removed together with the tumour at operation. Two other patients during the period under review and not included in this series were seen, who, radiologically could have had neurogenic tumours but refused operation. We regret that we do not know what happened to these patients.

Not included in these series was one malignant neuro fibroma, which was removed from a female Malay patient aged 19 years (Table V).

Four of these patients complained of dyspnoea and three of them had an enlargement of the thyroid gland in the neck; none were thyrotoxic. Four of the tumours were removed through a cervical incision and one by a right thoracotomy. One of these five glands was heterotopic and derived its blood supply from the innominate vessels Figs. 5(a) & (b). On histological examination all were found to be colloid goitres. One of the female patients was an Aborigine from the deep jungle, where, in certain areas, retrosternal thyroids are fairly common, but the patients are not willing to undergo surgery, even if they have symptoms. Four of these tumours occurred on the Right side and one was Bilateral (Table VI).

The Leiomyoma presented radiologically as an opacity occupying the middle and lower

TABLE II

## TERATOMA AND DERMOID CYSTS (Total—9)

Sex	Malay	Chinese	Indian	Min. Age	Max. Age	R. Side	L. Side
Male	2	0	0	13 years	22 years	2	0
Female	3	4	0	18 years	52 years	7	0

TABLE III

## PARATRACHEAL CYSTS (Total—3)

Sex	Malay	Chinese	Indian	Min. Age	Max. Age	R. Side	L. Side
Male	0	2	0	29	41	2	0
Female	0	1	0	15	0	1	0

TABLE IV

## NEUROGENIC TUMOURS (Total—11)

Sex	Malay	Chinese	Indian	Min. Age	Max. Age	R. Side	L. Side
Male	1	4	2	12	55	4 (1 tumour in a male was bilateral)	2
Female	2	1	1	8	56	2	2

TABLE V

## RETROSTERNAL THYROIDS (Total—5)

Sex	Malay	Chinese	Indian	Others	Min. Age	Max. Age
Male	0	1	0	0	—	54
Female	1	0	2	1	34	56

TABLE VI

## MESSENCHYMAL TUMOURS (Total—8)

Type of Tumour	No.	Male	Female	Race	R. Side	L. Side
Leiomyoma	1	—	1	Chinese	1	—
Haemangioma	4	2	2	Chinese	3	1
Chondroma	3	3	—	Indian	1	2

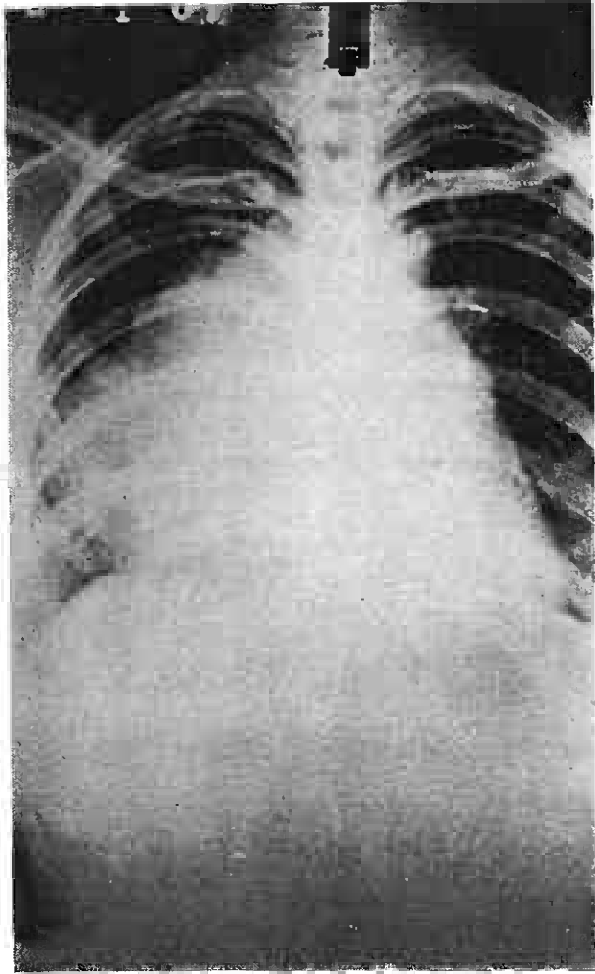


Fig. 1(a). P.A. view of Dermoid Cyst.



Fig. 1(b). Rt. lateral view of Dermoid Cyst which is lying anteriorly.

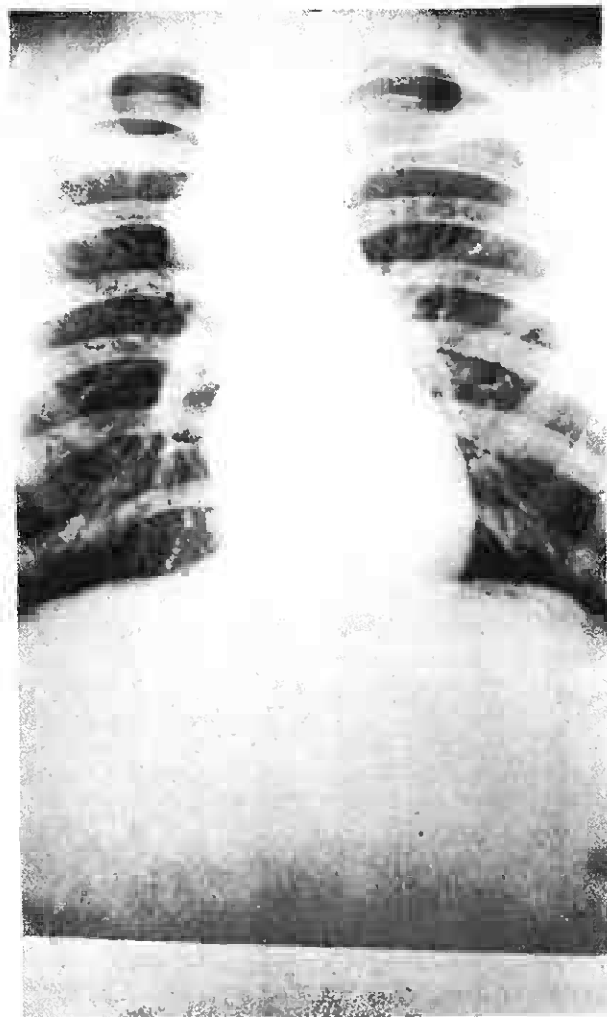


Fig. 2. P.A. view of a neurofibroma and widened rib space.

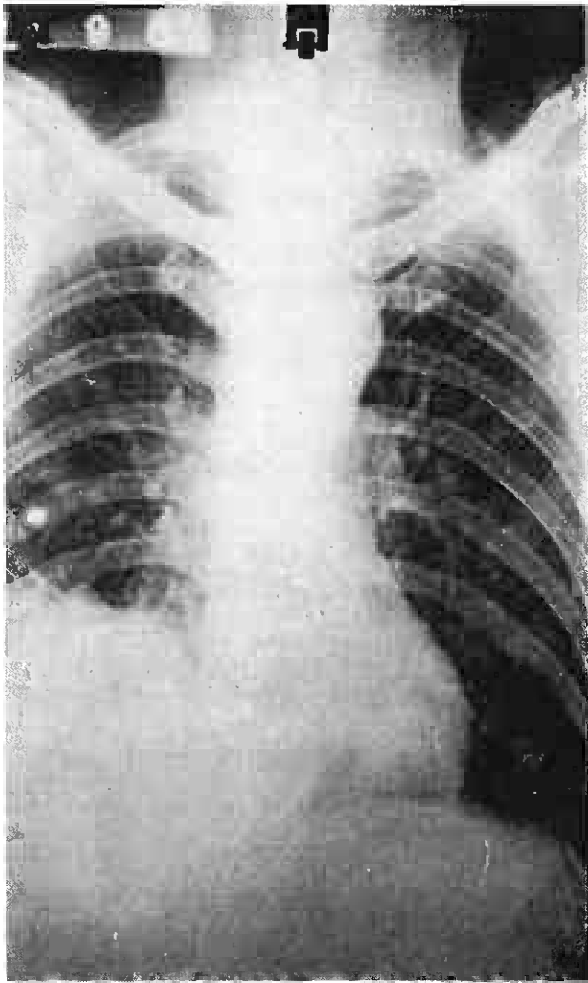


Fig. 3(a). Right sided neurofibroma—P.A.

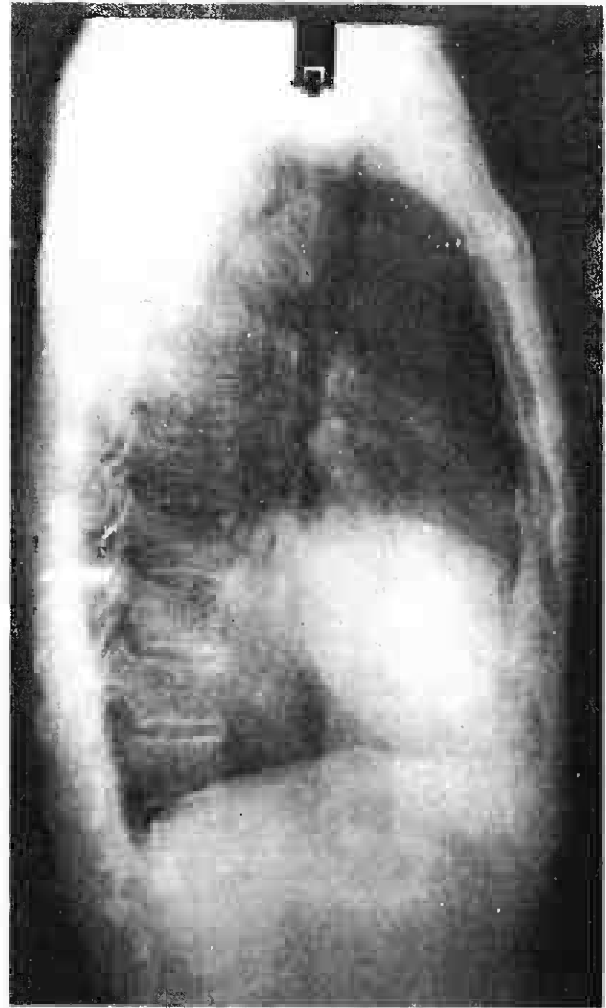


Fig. 3(b). Neurofibroma—Lateral view which is lying anteriorly.

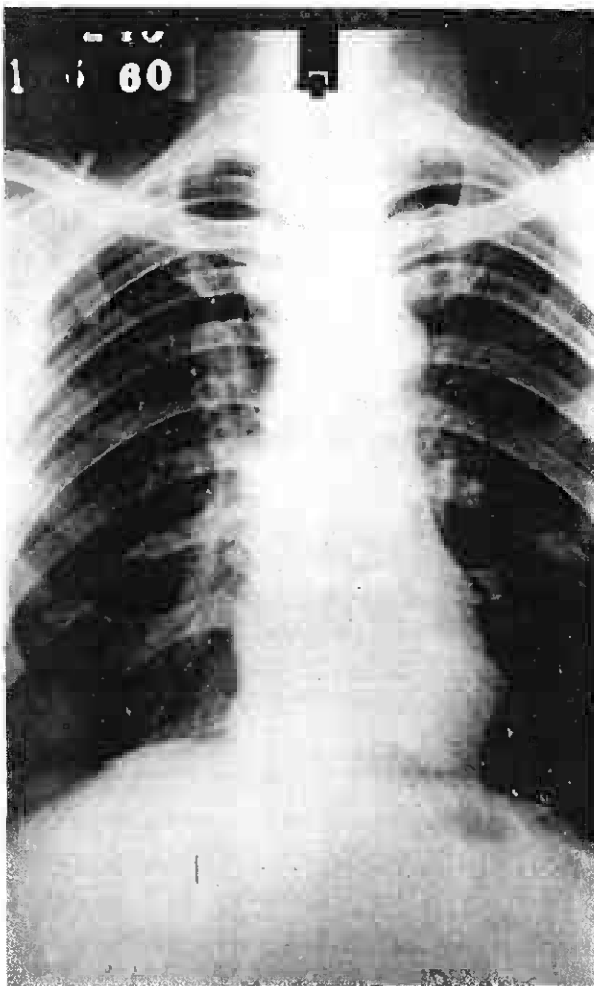


Fig. 4(a). Intrapulmonary neurofibroma situated in the right upper lobe.

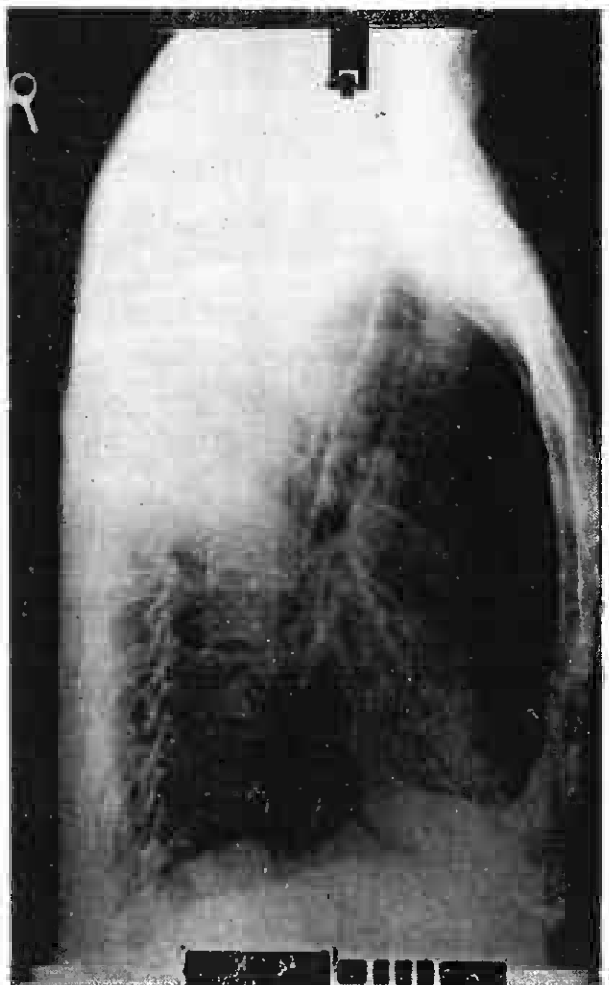


Fig. 4(b). Intrapulmonary neurofibroma (Lat view)—lying in the right upper lobe.

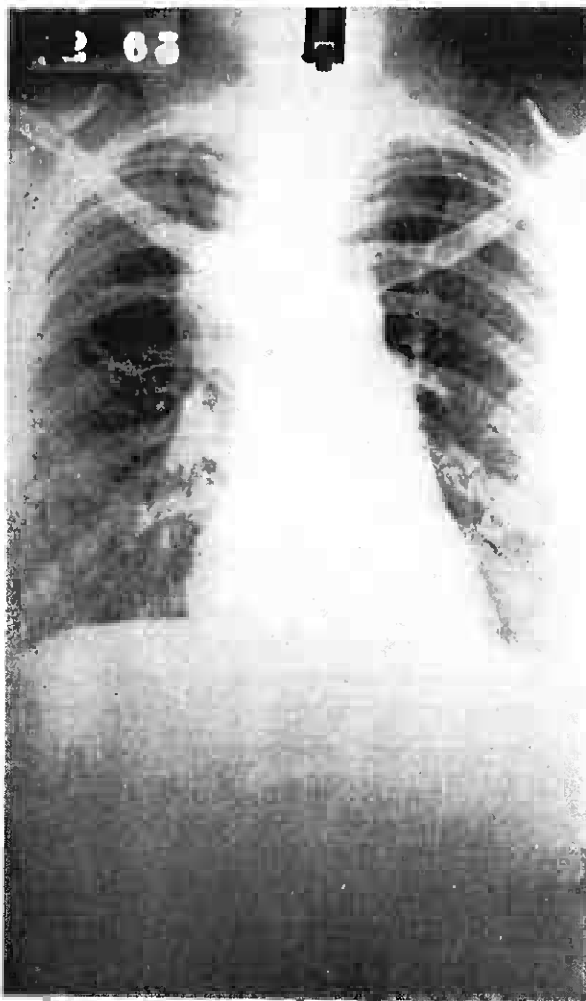


Fig. 5(a). P.A. view of intrathoracic heterotopic goitre.



Fig. 5(b). Lateral view of the intrathoracic heterotopic goitre lying in the anterior mediastinum.

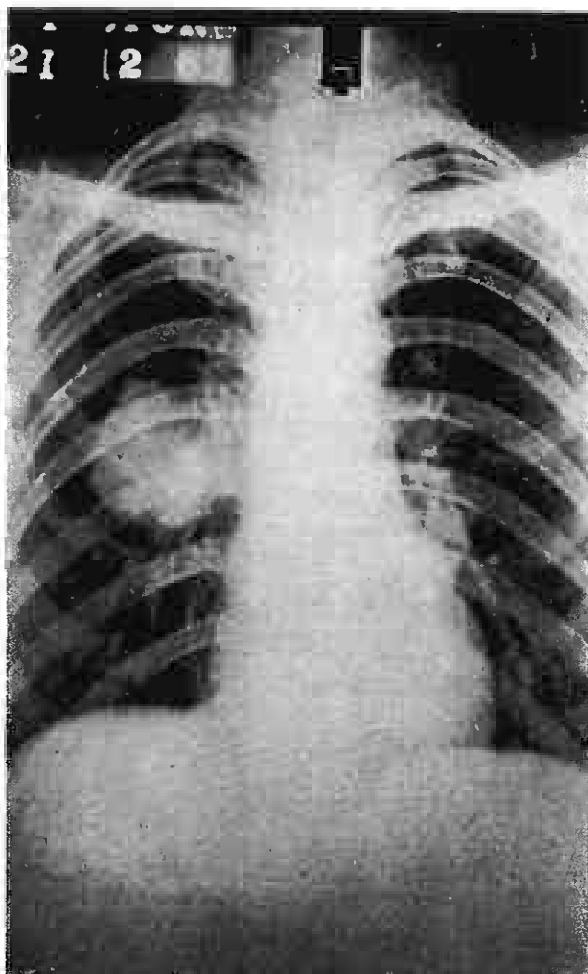


Fig. 6(a). P.A. view of a haemangioma which was found to be adherent to the apical segment of the right lower lobe.



Fig. 6(b). Lateral view of the haemangioma which was adherent to the apical segment of the right lower lobe.

TABLE VII  
UNCLASSIFIED TUMOURS (Total—5)

Type of Tumour	No.	Male	Female	Race	R. Side	L. Side
Adenoma	1	1	0	Indian	1	0
Papilloma	1	1	0	Malay	1	0
Hamartoma	3	2	1	2 Chinese 1 Malay	3	0
Enlarged Normal Thymus	1	1	0	Indian	0	1

zones of the right lung, lying posteriorly. Further investigations showed that a part of the stomach was in the thorax. At operation a diaphragmatic defect was present and the oesophago-gastric junction was replaced by a large spherical tumour, which was lying in the thorax. This tumour was a Leiomyoma of the stomach.

The Haemangiomas all occurred in Chinese patients. Of the four, two of the tumours were enucleated; one was adherent to the apical lower lobe and was removed with this segment, Figs. 6(a) & (b), and one was adherent to the mediastinum and pericardium and a biopsy only was taken. This last patient was given deep X-ray therapy and was alive and well one and

three-quarter years later.

The Chondromas all occurred in male Indian patients (Table VII).

The Adenoma was diagnosed on bronchoscopy and biopsy. As the patient had chronic bronchitis, he was considered unfit for major surgery. There were no signs of a carcinoid syndrome in this patient.

The Papilloma was removed by bronchotomy and the patient was alive and well two and three-quarter years after the operation.

Two of the Hamartomas presented with bloodstained sputum, the other with cough and fever. One of these patients had a lobectomy Figs. 7(a) & (b); one had the cyst removed with

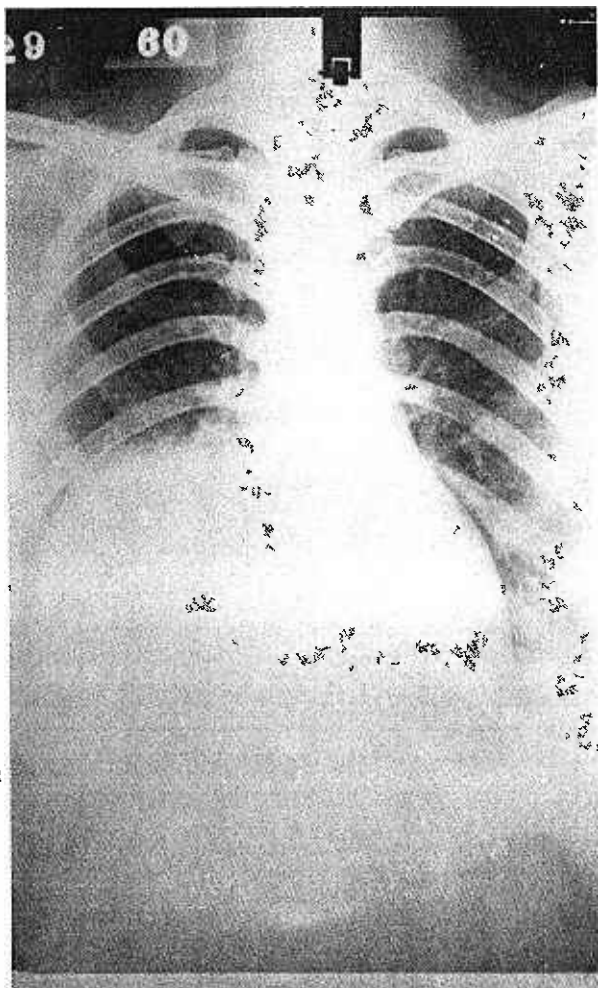


Fig. 7(a). P.A. view of a haematoma lying in the right lower lobe.

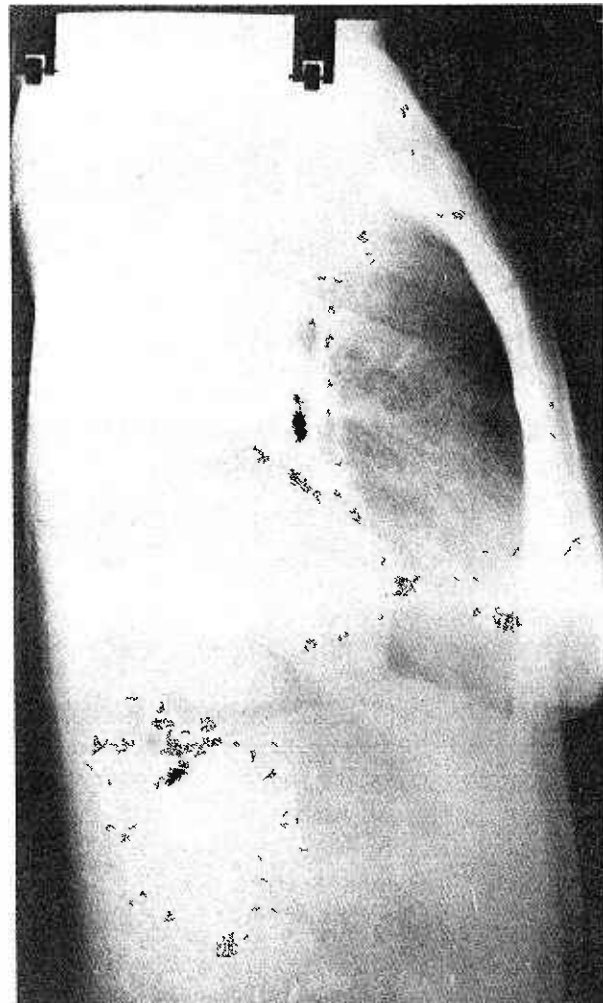


Fig. 7(b). Lateral view of the haematoma which was lying in the right lower lobe.

a sub-segment of the upper lobe and the other tumour was intrabronchial and was removed through the bronchoscope.

The Enlarged Thymus presented in an Indian infant aged seven months, with cough and fever; X-ray revealed a shadow in the left upper zone adjacent to the mediastinum, lying anteriorly. At thoracotomy, it was found to be an enlarged normal thymus and was not removed.

### SUMMARY AND COMMENT

A series of 42 Benign cysts and tumours of the thorax, collected over nine years from January 1959 to December 1967, from the multi-racial population of West Malaysia, has been described.

The Terato-Dermoid cysts and Neurogenic tumours form 47% of the total number of this series and this is a similar proportion to that described in other published series from different parts of the world.

Although this is too small a series to form any definite conclusions, it is nevertheless interesting to observe that 32 of these cysts and tumours occurred on the Right side, only 8 on the Left and 2 were bilateral. All the 9 Terato-Dermoid cysts occurred on the Right side. On the other

hand, in a review of 142 proven cases of bronchial carcinoma amongst the same races (Snelling and Chooi 1966) it was found that these tumours occurred with almost equal frequency on both sides.

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