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ELIOMA

ie age of 40, and dve of a primary om a feeling of the beginning or ecreasing dyspnoea it symptom in this f acute respiratory is is accompanied ere is an interval the finding of the isease, while ulti- forms — either the requiring frequent y quiescent period, rated by tumour. y disabled through ally ascites may ases or to cardiac

ibed as having 3 e of pleurisy and virus or pyogenic re usually success- ond stage is one of

pleural effusion with pleural thickening; it is then that the patient is usually admitted to hospital for investigation. Tuberculosis, malignancy, asbestosis and other causes of pleural disease may be considered. The final stage is one of obvious thoracic malignancy.

Age, Sex, Race, Habit and Occupation

Our 34 cases consisted of 24 males and 10 females (Table 1). Six men who had lived all their lives in the vicinity of the asbestos mines were the only patients under 40 at the time of diagnosis. Four of them had been miners. They

TABLE 1. AGE AND RACE DISTRIBUTION OF THE 34 CASES OF MESOTHELIOMA DESCRIBED

Race	Sex	Age				Total
		30-39	40-49	50-59	Over 60	
White	Male (14)	2	6	3	3	20
	Female (6)	0	1	3	2	
Coloured	Male (5)	2	2	0	1	8
	Female (3)	0	2	1	0	
Saniti	Male (5)	2	2	0	1	6
	Female (1)	0	0	1	0	
Total		6	13	8	7	34

were all in their thirties, the youngest being a miner aged 31. On the other hand, 7 patients were over 60, 5 being men and 2 women. The oldest was a man of 68. Six of these patients had lived for many years in the asbestos area and 3 of the 5 men had worked for long periods in close contact with asbestos. One woman died at the age of 60. As far as we have been able to ascertain, she had never been in contact with asbestos in her occupation as a nursing sister, and had never lived in the North West Cape. She is the only patient of the 34 who apparently had no contact whatever with asbestos.

The remaining 21 patients, 8 women and 13 men, were aged between 40 and 60. The 8 women had either been born in the asbestos district, or had moved there in early childhood. At the time of diagnosis, 3 of these women lived in the Transvaal and had never, or only occasionally, visited the North West Cape after leaving school. Three women had been engaged in the cobbing of asbestos in their homes. The non-European women mostly lived close to mines in houses where cobbing operations produced much dust, even when they themselves had done no such work. The European women had been to school near mills or had played on the dumps.

The 13 men aged between 40 and 60 comprised 7 whose work was connected with the mining, milling and transport of asbestos, 2 who were born and bred in the district but had not been engaged in the industry (they had often watched cobbing operations in native huts and had played on dumps and in mine shafts on farms), and 4 who worked with asbestos in distant industrial towns. Of these industrial cases, 2 were boiler makers who had lagged locomotive boilers. Another of these men had spent the war years manufacturing asbestos protective devices for fighting aircraft fires, and the fourth had worked as a boiler maker in a Cape factory, whose supply of asbestos was obtained from the Cape asbestos fields. It is interesting to note that in 1 family both the father and a daughter died of histologically proved mesotheliomas. In 2 other cases a sibling had radiological evidence of asbestosis.

Physical Signs

In the early stages auscultatory evidence of pleurisy, bronchitis, or consolidation are usual. As the disease progresses, respiratory excursions diminish until eventually a frozen chest results, with flattening of the infraclavicular region, 'roof-tilting' of the ribs and immobility of the chest wall. The chest is then stony-dull to percussion and air entry is grossly impaired.

During this late stage of the disease, evidence of secondary spread may appear. Eight cases in our series showed obvious clinical signs of peritoneal involvement before death. The peritoneum is usually infiltrated by direct spread through the diaphragm. The liver may be enlarged and nodular, due to perihepatic involvement. Localized masses due to involvement of the omentum or para-aortic lymph nodes may be felt. In these cases ascites is common. Involvement of the lymph glands of the neck has been clinically obvious in 2 cases. Implantation of the tumour in a biopsy scar is not frequent, but it complicated 4 thoracotomies and 1 thoracoscopy in our series. Haematogenous spread is unusual and only 2 cases have eventually developed distant metastases. These were predominantly subcutaneous but, in 1 instance, numerous small deposits appeared in the tongue.

Pleural effusions have always developed. Fluid collections of 5-6 pints have occurred, but often the pleural space is largely obliterated and only small effusions can collect. On tapping these effusions, considerable resistance is encountered due to the thickness of the diseased tissue (up to 2 cm.) which has to be traversed. Even with the point inside the cavity, the needle is often so tightly gripped that manipulations are restricted. Usually the fluid is straw-coloured, but blood-staining occurs and may be heavy.

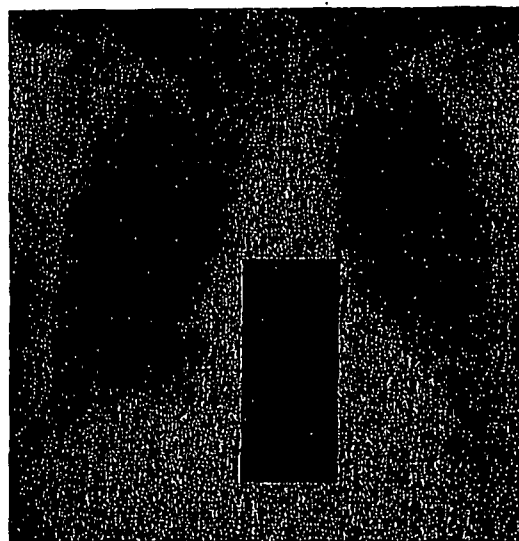


Fig. 3. Diffuse pulmonary asbestosis, particularly well shown in lower lung zones.