Medical Memoranda

Silicosis in a Chert-miner

The following case seems to be worthy of record in that it is, so far as I am aware, the first case of silicosis occurring in a chert-miner to be definitely acknowledged by the Silicosis Board, and in fact the only undisputed case of silicosis due to chert yet reported—a recent case having proved negative on post-mortem findings although compensation was paid during life.

Chert, or petrosilex as it was formerly called, is a very hard rock or flint stone. It can be of various colours—blue, black, or white. In some cases chert is solid all the way through; in others it is in layers with the limestone, and is called roof chert. It is a compound of silica and limestone, and 80% is mined in Bakewell, Derbyshire. The proportion of silica varies in different specimens, being within the wide ranges of 30% and 90%. Chert is used for grinding all pottery materials, and in glazing; it is ground into paste in the Potteries. Before this war it was constantly being exported.

CASE HISTORY

I first sent this man in Jan., 1934, to see Dr. P. Heffernan, who was unable to find any signs of tuberculosis in his chest. Although periodical radiographs have been taken regularly and the sputum has been examined for the tubercle bacillus the results have always been negative. The first, taken in 1934, showed a most perfect picture of silicosis—just like a snow-storm; and plates have been taken at regular intervals for the past 9 years. The radiograph here reproduced was kindly taken

Radiograph of the case, showing nodular fibrosis in each lung.

for me by Dr. Grout of Sheffield in 1939. (It is only owing to absence on war service that I have not published the case before.) It shows nodular fibrosis in each lung. The chief symptoms in this case were shortness of breath, cough with some sputum, and a feeling of weakness and tiredness. The man's history is particularly important in view of the hand labour, subsequently replaced by machine labour.

The patient was born in 1886 and started work in 1898 at mine A, working below ground as a drill-turner with the striker beside him. The men worked unprotected, and dust flew about. In 1899 hand work was done away with and machinery was introduced in the limestone. Subsequently he was a poker-holder on the boring machines for 2 years; then a machine-driver for 4 years. He subsequently worked for about 14 years

in the chert—all hand striking and hand boring. He left Mine A and went to Mine B, where he worked for 11 years in the chert—all underground work, all machine boring. In all, he worked about 31 years in chert. He left work in 1935. Full compensation has been agreed to, and paid since 1936. One fact should be mentioned in all fairness. In 1918 he left chert for 3 weeks and was employed in sandstone, but he was only cleaning up, and did not actually work in sandstone himself, so I feel that this period of 3 weeks can be overlooked. At one time he drank a fair amount of alcohol after work, and the fact that he did so may have been a contributory cause of his sensitivity to absorption of silica dust. He also had some degree of cirrhosis of the liver and has had more than one attack of delirium tremens. The radiograph in this case is diagnostic and conclusive.

My thanks are due to Dr. P. Heffernan for his great help in the diagnosis of this case.

Bakewell.

C. W. EVANS, M.R.C.S.,
Late Capt., R.A.M.C.

Acute Benign Dermatomyositis

A mild type of myositis or myalgia has been described from time to time under the heading of Bornholm disease. The pain is upper abdominal or thoracic, of abrupt onset and severe, and accompanied by fever and sweating. It has been regarded as a toxic myositis due to a specific infection, since on occasion it appears as a small epidemic. Hypersensitivity of the skin does not form part of this syndrome, but a combination of myositis with tender skin and peripheral neuritis has been recognized and described under the term dermatoneuromyositis. Such cases are usually grave, since a residual fibrosis of muscle and skin leads to the condition of scleroderma, which has only recently been recognized as the sequela of an acute dermatomyositis. Intermediate forms are probably not uncommon. Williams (1941) described 5 cases of benign dermatoneuromyositis occurring shortly after inoculation with typhoid vaccine. There were meningeal symptoms, and the spinal fluid showed an increase of cells but was sterile. He gave reasons for considering allergy not the essential cause, and attributed the illness to a virus infection. The isolated case described below would seem to be another variant of the same syndrome.

CASE REPORT

A farmer aged 32 was admitted to the Royal Northern Infirmary on April 21, 1942, as an emergency case. On April 11 he had felt tired and rather stiff after working late mixing pig food. This slight stiffness and tiredness persisted for the next 3 days, when he had a bout of sneezing, and on the following day, April 16, he had frontal headache and a general increase in the feeling of stiffness. Seen by his doctor on the 18th, he had a temperature of 101° F. and a pulse of 68, and on this day developed retention of urine and vomited repeatedly. He described severe headache, both frontal and occipital, and epigastric pain. He now began to find his skin very tender, and noticed that any little effort made him sweat profusely. He was catheterized twice by his doctor before admission to hospital.

He was afebrile after reaching hospital. Any movement, except of the hands, gave him acute agony. He preferred to remain in a half-sitting position, and could not bear to feel the bedclothes touch his skin; but over certain parts—e.g., in the left leg and the right thigh—there were areas of reduced sensibility to superficial stimuli. No reduction in appreciation of temperature was present, but cold objects were felt as painful. Sense of position and localization and vibration were all intact. Over the trunk and the greater part of the limbs light touch felt to him as if he were being rubbed with sandpaper. Photophobia was present. He was catheterized without any difficulty, and retention appeared to be due to the extreme pain occasioned by efforts at voluntary micturition. No physical signs apart from those described were found in the nervous system or any other system. His spinal fluid on April 23 was completely normal, and the white cell count on the same day was 5,200 per c.mm. (polymorphs 49%, lymphocytes 46%, monocytes 4%, eosinophils 1%). Within 3 days of admission he was able to move about quite freely and there was no further retention of urine. At the end of a week all his symptoms had disappeared except for a feeling of numbness and altered sensation to light touch in the legs. He was discharged from hospital after a fortnight and was seen again a month later; he was then in perfect health except that he still complained of a slight sensation of numbness in his feet.

DUNCAN LEYS, M.D., F.R.C.P.

Consulting Physician, Highlands and Islands Medical Service.

REFERENCE

Williams, Denis (1941). *Quart. J. Med.*, 10, 283.