normal, and nothing fresh was noted till November 22nd, when the eyes were suffused, sneezing occurred, and several Koplik's spots were seen; temperature, 98°. 9.30 p.m. Several faint macules on the cheeks and behind the ears; streaks of deposit on the tonsils; temperature, 103°.

November 23rd 11.45 a.m. Rash gone; no catarrhal symptoms beyond suffusion of eyes, Koplik's spots, and stomatitis; temperature, 97°. 7.15 p.m. Face puffy and dotted over with macular eruption; urticarial wheals on thighs and knees; scarlatiniform rash on inner side of thighs; erythematous patch on right calf; temperature, 101°. 10.30 p.m. Urticaria and scarlatiniform rash gone; eruption on face and erythema on calf fainter; temperature, 101.6°.

November 24th. Typical measles rash.

I am indebted to Dr. J. E. Beggs, Medical Superintendent of the Grove Hospital, for permission to publish these cases.

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A CASE OF "FIBROID PNEUMONIA."

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IN 1890-1 the writer described the anatomical features of a peculiar form of pulmonary induration which succeeded to a disease presenting the characters of acute pneumonia. Other cases were also described having a similar anatomical lesion, but beginning as a subacute affection. It seemed imperative to regard these affections as constituting a distinct class, having in their inception and subsequent course little or nothing in common with the ordinary forms of what is described as "chronic pneumonia." About the same time at least one case of the subacute variety referred to was reported by Dr. P. Kidd under the designation "subacute indurative pneumonia." The term "fibroid pneumonia" was used by the writer to designate both the acute and subacute varieties of this affection.¹

The issue of acute pneumonia in induration of the lung is denied by many eminent authorities, and on examining the records of the cases which have been adduced in support of such a sequence it will be found that many of them present a history of some antecedent pulmonary affection, such as chronic bronchitis, emphysema, or tubercle. It would therefore, perhaps, be more correct to say that it is questionable if a pneumonia attacking a perfectly healthy lung—implanted on a virgin soil, so to speak—ever issues in induration, as here can be little doubt that the organism is in either case

the same. The difference lies in the soil and what it may contain.

When some definite lesion of chronic inflammatory character already exists in the lung it is not difficult to understand that this would impose a more stable and resistant character on the pneumonic inflammation itself, but when (as in the case about to be recorded) such an antecedent lesion is wanting, the modifying influences which render the pulmonary inflammation atypical, namely, of a prolonged and fibroid character, can only be guessed at. Two considerations may be advanced. One is that certain other toxins are locally present; the other, that the antibacterial and antitoxic bodies are insufficiently produced, or, when produced, are modified or disturbed in action. It might, perhaps, be legitimate also to consider the possibility of infection by a special variety of the pneumococcus, but this is unlikely. It is evident that in the subacute variety of this affection the action of the modifying influences must be largely augmented.

In view of the rarity of these cases and the interest attaching to the clinical and pathological problems which invest them, it is of high importance that careful records be made of them wherever possible. In the following case the clinical aspects alone have been the subject of investigation, as opportunities were lacking on the pathological side.

It is that of a little girl, aged 3 years. Her parents, brother, and sister are all healthy. The patient had been professionally known to the writer for a considerable time prior to her illness, as she occasionally got "run down," and was sent to the country, but she never presented any signs of active disease, and her chest had been frequently examined. In October, 1903, she returned from the country apparently in perfect health. On the sixth day of that month, while at play with other children, she, in the words of her mother, "suddenly became sick and vomited, complained of headache, and got very hot." She was put to bed, but the fever continued, and that night she became delirious. Next morning Dr. Jefferiss, then house-surgeon at the Westminster Dispensary, was sent for. He diagnosed acute pneumonia of the right lung and prescribed accordingly. The delirium continued, and the consolidation invaded nearly the entire lung. On the third day an experienced nurse was brought in attendance, to whose care and devotion the excellent and complete charts of the case are due. It will be seen that on the fourth day of the disease the morning temperature rose to 104°.

That the highest-recorded temperature should be a morning one is not so very unusual in such cases. On the seventh day it fell to 99.6°, as though a pseudo-crisis had been attempted. It may be said that the chart from the third to the seventh days is quite in keeping with an ordinary acute pneumonia occurring in a child. The fall of temperature on the seventh day was accompanied, as the chart shows, with a fall in the respirations from 60 to 36. During this week there was also obstinate constipation. Instead of resolving, the fever continued, presenting for weeks the characters, more or less, of a continuous fever. It is noteworthy that a rather abrupt rise of temperature occurred in the third week.

Finding after a lapse of a week no amelioration of the symptoms, Dr. Jefferiss asked the writer to see the case with him, and here is what was found: the child lay on her back, the breathing was frequent and shallow, and the cheeks had a pink flush; the skin was hot and dry. Inspection showed the right side to be motionless. The heart's apex was in the normal position. Vocal fremitus was increased all over the right lung, and the percussion note was so dull from apex to base as almost to warrant the designation of "flat." The dullness below was indistinguishable from the liver dullness. There was very high pitched tubular breathing over the entire lung, with whispering pectoriloquy. No rales of any kind. The left lung was normal throughout, the breathing therein was puerile, and for some distance outside the vertebral column the tubular breathing and voice sounds from the opposite lung were conducted. Mensuration at the level of the nipples showed the right lung to be expanded as compared with the left to the extent of three-fourths of an inch. There was very slight expectoration of a rusty character, which had been present all along. Exploratory punctures were there and then made in two different places, but not a drop of fluid was obtained.

These signs remained quite stationary for four weeks, when some moist rales developed in the apex and the dullness and tubular breathing became less marked there; the latter becoming more bronchial in character. The chest was again explored for fluid, but not a drop could be obtained. The course of the disease as to temperature, pulse, respirations, etc., during the first six weeks of the illness is graphically depicted in the accompanying charts. Thereafter the temperature gradually fell until it became practically normal in the tenth week, and in the eleventh week it was slightly subnormal. Nevertheless the pulse-rate continued about 140 per minute and the respirations about 40.

The child was now up and about, her temperature continued normal, and there was no cough or expectoration. But the pulmonary condition remained absolutely unchanged, except that the high-pitched tubular breathing was replaced by lower-pitched bronchial breathing, and at the extreme apex some percussion resonance was obtained.

Early in January, 1904, the child was sent to a convalescent home in Norwood. On the fourth day of her residence there the evening temperature rose to 100°, and this diurnal rise continued. She was attended by Dr. A. Rose of South Norwood, who kindly wrote to me afterwards as follows: "I inserted an exploring needle into the child B.'s chest in two different places on January 23rd, but got no fluid whatever. When I first saw her, the whole side of her chest was dull and no breath sounds could be heard.² Vocal fremitus and resonance were absent or almost so,³ so I thought there must be a lot of fluid in it. Later on there was faint bronchial breathing over the greater part of the lung, but no moist sounds were heard. There was no expectoration, or it was swallowed." During the last four weeks of her stay at Norwood the temperatures were taken morning and evening, and show the former to have been either normal or 99° and the latter 100° to 100.4°.

The patient returned from Norwood in April, and on examination the lower three-fourths of the right lung presented no change whatsoever. The extreme apex, however, had become fairly resonant, and was the seat of moist rales. The breath sounds in this situation were also bronchial. Dr. McKenzie Davidson now kindly consented to x ray the chest. The right lung was in uniform deep shadow, with the exception of the extreme apex, which showed a mottling of light and shade. The shadow was, if anything, rather less dense along the thoracic wall, and

the outlines of the ribs could be seen. It was indistinguishable below from the liver shadow in respect of density, but the diaphragm was seen to be deeply depressed as compared with the left side, and presented the appearance of an irregular, more or less horizontal, line, which at its outer aspect turned rather sharply downwards and outwards to the lowest ribs, leaving a triangular-shaped dark interval against the chest wall. These features are extremely well seen in the excellent photograph which Dr. Davidson took the trouble to print. Dr. Davidson, without any hesitation, expressed the opinion that the shadow was entirely due to consolidated lung, and that no fluid was present in the pleural cavity. Mensuration of the chest at the nipple level at this time showed both sides to be equal, indicating a slight retraction of the right side since the early part of the illness.

The patient when next seen had developed considerable cough with expectoration. Numerous tubercle bacilli were found in the sputum. It was evident that the right apex had become extensively invaded by tubercle; the rest of the lung was unaltered. This state of matters continued for several months, but in the autumn of 1904 an improvement set in, the expectoration diminished, the child gained in weight, and the apex showed signs of healing. This improvement has been maintained, and at present (January, 1905) the child is residing in the country enjoying very good health, gaining in weight, and her temperature has become normal.

It seems fairly certain that this tuberculous infection of the apex was an accident of the disease occurring, so far as the symptoms indicated, about the third month. It was at this time that the temperature, after being normal for some weeks, began to show an evening rise. When it is considered that the apex in question sustained such a grave initial injury, that it only partially recovered, and that it was permanently thrown out of action by the condition of the remaining portions of the lung, it would be rather a matter for surprise if it should escape.

The personal history, symptoms, and physical signs in this case leave little room for doubt that the initial lesion was an acute pneumonia, and that it invaded a lung which contained no gross lesion of appreciable character. As already indicated, we can only guess at the nature of the reconduite element operating in the direction of fibrosis. The writer is inclined to the belief that this element is not imported at a certain stage of the disease, but that it is present from the very beginning. Hence the disease, though beginning acutely, may in reality be chronic in nature from the very first day. Histologically, however, this merely amounts to saying that the inflammation extended to the fixed corpuscles of the alveolar walls, causing them to divide and migrate into the fibrinous exudation. In this way the alveolar cavities would become filled with organized deposit. This must occur early, as only the "red" or fibrinous exudation is capable of organization. Thus it is seen how this form of fibroid lung is a large lung, permanently large, and is indeed the only large fibroid lung.

The disease is febrile, it is pneumonic, and it is fibroid; hence it is a fibroid pneumonia. It may begin very acutely, like an ordinary acute pneumonia, or subacutely; and though always rare, is more liable to attack lungs already injured. It is a disease which, in its bolder features, is unusually clear and definite. It is, perhaps, still customary to apply the generic terms "chronic pneumonia" and "interstitial pneumonia" indiscriminately to all forms of fibrosis of the lung. But the advance of our knowledge has proved that the several varieties of contracted lung, chronic from the commencement, whether the dominant fibrous invasion be of pleural or pulmonary origin, are due to tubercle. They are included under the term "fibroid phthisis," and the writer would respectfully suggest the propriety of adopting a nomenclature expressive of the distinction between the tuberculous affections and an affection differing entirely in respect of its origin, in respect of its anatomical evolution, in its independence of specific neoplasm, and in the radius and degree of its local effects.

REFERENCES.

¹ A full account will be found in the writer's *Pathology of Bronchial Affections and Pneumonia*. London: Churchill. ² The writer had never failed to hear bronchial breathing. ³ The child had an extremely weak voice.

NOTE ON LOBAR PNEUMONIA FOLLOWING MEASLES.

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BRONCHOPNEUMONIA following measles in children is well recognized, but mention is not made in the textbooks of the fact that lobar pneumonia is a frequent complication; yet it has occurred much more frequently than bronchopneumonia