

of the day, particularly if a cavity has formed, which fills up, and coughing comes on, and it is emptied. This may occur with the regularity of clockwork. When the cough is hard and spasmodic, particularly when matter is raised from the lower part of the lung, it may excite vomiting, which may prove a troublesome complication.

The matters expectorated are, in the early period of the case, simply catarrhal products and clear mucus; as the disease progresses they become streaked with yellow, and later they acquire a solid, yellow character, floating in a certain amount of bronchial serum or mucus. It is impossible to determine the state of the lung from the character of the sputa, for sputa having all these characters may be produced at any stage, because, while the lesions at one part may have reached the final stage, they may at another point be just beginning. The patient may have a severe phthisis, and raise very little, while another with a small amount of disease may raise a large amount. We must, therefore, conclude that a large amount of the expectorated matters come from the bronchial mucous membrane.

In many cases you will find that the patient complains of local pains about the chest. These apparently depend upon small local attacks of pleurisy, or sometimes upon attacks of muscular rheumatism, to which such patients are exceedingly liable, on account of the relaxation of the whole system.

There are certain special symptoms which may occur during the course of phthisis, to which I will now allude. The first of these, hæmoptysis, or spitting of blood, is a symptom universally dreaded, and always regarded as a certain sign of consumption; but I know of no symptom whose significance is so much misunderstood. There is no difficulty in recognizing when a patient has hæmoptysis; the character of the blood and the way in which it is raised will indicate its origin; but it is very difficult to decide upon the precise spot from which it comes. Undoubtedly, in the larger number of cases, it comes from the bronchial mucous membrane, especially of the smaller tubes. In other cases it comes from the capillaries of the lung. In others from a vessel of con-

siderable size which has been opened by ulceration.

In what condition does it generally take place? We notice it in many cases at the very beginning of the attack. Now, as long as it was the habit to say there was a deposit of tubercle in the lung, and the irritation from this deposit caused the hæmoptysis, hemorrhage was regarded as a sign of tuberculosis of the lung; but as a matter of fact, those cases that have hemorrhage are least apt to have tubercle. In tubercle, as I have described it to you, no blood-vessels exist; no anatomist has been able to discover any capillaries in it; and when it forms in the wall of a blood vessel, a clot forms, and the vessel is closed. Where you meet with hæmoptysis in a person who has been apparently well, you will find that it usually occurs from an acute attack of catarrhal pneumonia or congestion of the lung.

We thus see that hæmoptysis is most frequently an evidence of acute congestion or acute catarrhal disease, and that it generally occurs at the very beginning of the attack, and that when it appears during the progress of the chronic form it will usually be found that each attack of hæmoptysis marks an acute extension of the disease.

I have a few more remarks to make in regard to hemorrhage, which I shall defer until we meet next week.—*Medical and Surgical Reporter.*

## DIAGNOSIS OF BRAIN DISEASE.

The April number of the *Journal of Nervous and Mental Disease* contains an extremely interesting and able review of Nothnagel's work on "The Local Diagnosis of Cerebral Diseases—a Clinical Study," of which we present the following abstract. The opinions of Prof. Nothnagel are fairly embodied in the conclusions with which he ends the discussion of the symptomatology of the lesions of each particular region of the brain. The first part considered is the cerebellum:

1. CEREBELLAR AFFECTIONS may remain latent and defy diagnosis. This is regularly the case with permanent or destroying lesions located in one hemisphere.