

be aspirated into other portions of the bronchial tree. Being an excellent culture medium with proper conditions of temperature, moisture, and darkness the flora present in the diseased lung multiplies with great rapidity, and there may be foci of broncho-pneumonia with absorption of toxins and products of growth causing the rapid pulse, fever, malaise, cough, and heavy breath so frequently seen for a few days after a brisk hæmoptysis. Further than this there may be set up, by the tubercle bacilli set free, an acute miliary process. This is not infrequent.

We must remember, too, that in advanced cases a slight bleeding may precede a severe hæmoptysis.

Diagnosis. Little need be said here. Unless some other definite cause, such as mitral disease, aortic aneurysm, new growth, specific ulceration, injury, scurvy, or other condition associated with hæmoptysis, can be diagnosed, we should consider pulmonary tuberculosis to be present. This was recognized by Louis* who wrote "hæmoptysis whenever it occurs renders the presence of tubercles in the lung infinitely probable." If physical signs are negative, the blood should be examined thoroughly for tubercle bacilli.

Prognosis. Though some few cases of fatal hæmoptysis have been reported in early pulmonary tuberculosis, these are extremely rare, and we can to almost every such patient give a good prognosis. With moderately advanced disease the outlook is not quite as bright; yet, with most such patients, especially those who are apyretic, the bleeding entails no discomfort whatever and passes off with a few days' rest. Should it be profuse, there is the grave danger of an infective broncho-pneumonia, or of a localized miliary infection. Should dyspnea, rapid pulse, and high temperature appear, the prognosis is necessarily grave while they persist.

With far advanced tuberculosis, the prognosis is increasingly grave, complications being more apt to arise, and the hæmoptysis more apt to be severe; the patient, too, is less able to withstand a sudden loss of blood. Hæmorrhage is cause of death in only one to two per cent. of all cases. Hæmorrhage may occur into a large cavity and cause death with little or no hæmoptysis, or it may be profuse with complete suffocation, the blood pouring rapidly out of the mouth.

Treatment. Our general measures are practically those prescribed by Celsus.† "If the blood has proceeded from the fauces, or the interior part, greater care is to be employed. Erisistratus bound the legs and thighs and arms of these in many places. . . . If fever oppresses, gruel is to be given, and water for to drink, but if fever is absent either washed maize, or bread out of cold water, and also a soft egg may be

* Louis—Pathological Researches on Phthisis—Bowditch's Edition. Boston, 1836.

† Celsus—De re medica, Liber quartus, iv., translated by John Steggal, M.D. London, Jno. Churchill, 1837.