

tions it only twice, while Murphy, in his article on "Surgery of the Lung," in a collection of 59 cases of abscess, does not give foreign bodies as an etiological factor. Clarke and Marine, after a careful search of the literature, found but 31 cases in which gangrene followed the inspiration of a foreign body. In these 31 cases, the foreign body was a tooth twice, a pin once, a piece of wood once, a button twice, a head of grain or grass seven times, a bit of evergreen twice, a fruit-stone twice, a bone ten times; not mentioned, 4 times. The gangrenous process in these cases lasted from three days to four years, most frequently from two to four weeks. The right lung was involved in 14 cases, the left in 7 cases. Death occurred in 21 cases, recovery after thoracotomy in 2, and spontaneous recovery in 4 cases. The foreign body was coughed up in 5, four of which subsequently died, and one made a rapid recovery.

The diagnosis and location of pulmonary abscess is sometimes extremely difficult, and differentiation between abscess and gangrene is, in many instances, quite impossible. Lenhartz and Körte think the differentiation artificial and uncertain. In both lesions the primary condition is infiltration and smelting together of the tissues, and whether these tissues break down and form large sequestra, or break down into small particles, often as elastic tissue, is only a question of degree. In fact it is difficult and sometimes impossible to tell whether there is a sequestrum or not. The differentiation by examination of the sputum may lead to erroneous conclusions, for although a pure purulent expectoration would stand for abscess, and a fetid ichorous expectoration for gangrene, yet a sequestrum may be present with a purely purulent expectoration. In one of Körte's cases ten days after the opening of the abscess cavity in the lung a sequestrum the size of the end of the thumb was removed. In fact, a condition of abscess and gangrene may both obtain in the same cavity. The prognosis would seem to be better in cases of pure odorless pus.

Foul-smelling purulent sputum containing lung tissue or elastic tissue indicates the presence of pulmonary abscess, or gangrene or both. Traces of blood are frequent and hemorrhages are not uncommon. If a putrid sputum follows acute lung disease, three things are possible: abscess or gangrene, bronchiectic cavities, or a bursting of pus into the lung from the pleura, subphrenic region, or the mediastinum. In the differentiation of these three conditions, a careful study must be made of the history of the cases, as well as a careful physical examination. A thin layer of normal lung tissue over the