

came to have been ardently disputed and by some denied. BEITZKE (*Virch. Arch.*, 1906, clxxxvii, 183) among others has repeated the experiments of Vansteenbergh and Grysez and has arrived at diametrically opposite conclusions. Beitzke comes to the same conclusions as did Arnold in 1885, namely, that anthracosis of the lung is caused by aspiration of coal pigment. Beitzke finds that when india ink is injected into the peritoneal cavity of guinea-pigs and rabbits, the pigment is taken up partly by the lymphatics of the omentum, partly by those of the diaphragm, and is carried to the lymph nodes above the diaphragm and under the sternum. When the cells of these glands are saturated with pigment, the particles of india ink pass through the glands into the thoracic duct, whence they are carried to the blood stream. A general pigmentation of the organs of the body follows, in which, however, the lungs are not nearly so extensively pigmented as the spleen, the liver, and the bone-marrow. Anthracosis of the lungs could not be produced by merely feeding rabbits, guinea-pigs, and a dog with coal dust mixed in their food; and following the administration of india ink to dogs through an œsophageal tube there was no pigmentation of the lungs except in one dog who struggled violently during the operation and certainly aspirated pigment. Rabbits fed through gastric fistulæ did not show the slightest sign of pigment in the lungs. On the other hand, aspiration of soot, with or without ligation of the œsophagus, always gave rise to pulmonary anthracosis. In the last experiments the bronchus leading to one lung was closed, and afterward the animals were allowed to inhale soot. The lung to which there was free access of air showed deep and extensive pigmentation, while the other lung, to which the closed bronchus ran, was partially collapsed and totally free from pigment.

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**Blood Formation in Severe Anemia and in Leukemia.**—MEYER and HEINEKE (*Deut. Arch. f. klin. Med.*, 1907, lxxxviii, 434) have devoted much time to the microscopic study of the organs in lymphatic, myelogenous, and mixed-cell leukemias, as well as in cases of pernicious anæmia which were atypical, inasmuch as myelocytes and undifferentiated lymphocytes were seen in the blood. They conclude that lymphatic and myelogenous leukemia are very different processes; for in one there is a general growth of the lymphoid tissue of the body, while in the other the lymphoid tissue remains passive, and is even compressed by the newly formed myeloid tissue. These myeloid growths arise from the cells of the organs, but not from the lymphoid cells. In the spleen the myeloid cells develop from indifferent pulp cells. In the liver the myeloid growth corresponds to the blood formation in the fœtus, the white cells arising in the perivascular spaces, the red cells in the blood-vessels. The myeloid transformation in the spleen, liver, and lymph nodes was also seen in cases of pernicious anemia, and in one case of aplastic anemia it was present to a remarkable extent. This is to be considered as a compensatory process to carry on the function of the bone-marrow, which is in some way seriously affected. It is, in its nature, a distinct reversion to the embryonic form of blood formation. This process of blood regeneration outside the bone-marrow may be seen in certain cases of severe anemia following acute infection, and may be brought about in animals by the production of anemia by means of various poisons.