

becoming lodged in the capillaries of the muscle fibre, causing hyaline thrombi, whilst the pigment (hemoglobin) diffuses throughout the tissue. (Adami Sys. Path., p. 903.)

According to Wells<sup>10</sup>, the staphylolysin, or streptocolysin, seem to differ from the ordinary cellular hemolysin in certain features, *e.g.*, reaction to heating, etc. They are simply toxins for the red cells, uniting directly with the receptors without the intervention of an intermediary body.

Bacterial hemolysins are all merely toxins with a particular affinity for red cells.

In the case of this red change in fibroids of a non-pregnant uterus, it seems reasonable to suppose the infection is from the alimentary tract, probably the rectum by the colon bacillus, the predisposing cause being pressure of the tumor upon the bowel wall causing irritative peritonitis, and so injury to its walls. It is significant that in the case reported above of Fairbairn's, the red fibroid was the one in the posterior wall of the uterus, the one in the anterior wall being normal.

The above explanation has been proposed by Gebhard and others<sup>12</sup> (Pathological anatomy). The red fibro-myomata show loss of the outlines of the muscle fibres, with feeble and diffuse staining, with nuclear ghosts or disappearance of the nuclei. In our case there was some parenchymatous degeneration, with slight edema and disappearance of the nuclei. The pigment did not react to the Perl's test, hence seems to be unaltered hemoglobin.

*Symptoms.*—Pain is the most frequent symptom in a fibroid undergoing red degeneration; indeed, a painful fibroid in a pregnant uterus is almost pathognomonic of this change.

As stated above, in 19 cases investigated by Fairbairn, pain was present in 16 cases, and in 11 of these was severe, and the chief reason for the patient seeking advice. In the case here reported by us pain was the only symptom complained of until the interruption of the pregnancy. Pain may be severe enough to simulate an ovarian cyst with twisted pedicle or a ruptured tubal pregnancy.

Kelly and Cullen<sup>11</sup> report 5 cases of myomata associated with pregnancy, in three of which there was pain; two complaining of constant pain in the lower abdomen and the third of a jumping and gnawing pain. On the other hand, tenderness does not seem to be a very marked symptom; in the case we are reporting there was very little complained of. Tenderness, like high temperature and softening, seem rather to exist only in the later stages of the degeneration. Hemorrhage from the uterus is unusual.

*Diagnosis.*—The previous knowledge of the existence of a