

becomes a deep red or mahogany tint on section either in streaks or throughout the whole substance, and it is with the significance of this change we intend dealing.

First of all, let us review briefly the histogenesis and structure of uterine fibroids in general, as this has an important bearing in discussing the various theories of the causation of "red degeneration."

According to Pilliet² fibroids begin in the walls of the uterine capillaries, *i.e.*, they are angel-myomata, and he claims that this also explains the origin in fibromata of peri-vascular sarcomata (perithelioma), since both are tumors of a vascular series.

However, most observers are agreed that fibroids begin as proliferations of muscle cells, but whether peri-vascular or of the true uterine parenchyma is disputed. Thus, all fibroids are primarily myomata and only secondarily become fibrous or fibro-myomata.

The frequent difficulty in distinguishing between the pure myoma, or non-stripped muscle neoplasm, and the pure fibroid may be explained by regarding the majority of the "fibroids" as originally muscle tumors, which, in the course of the growth, become gradually changed into fibrous tissue, not by an overgrowth of the connective tissue framework, although this may occur coincidentally, but by a direct conversion or metaplasia of the muscle fibres into connective tissue. The prevalent view, of course, is that the muscle undergoes atrophy and replacement.

Such metaplasia is to be regarded as an adaptation on the part of the cells to altered environment, and not of necessity and primarily to altered function.

Thoma has shown that as a result of immobilization of a joint by surrounding adhesions, etc., the cartilages covering the articular surfaces disappear and are replaced by mucoid and connective tissue. Physiological metaplasia is seen in transformation of cartilage into bone and connective tissue cells into fat cells.

Fibroids are said never to develop before puberty or to become active after the menopause, hence the stimulus producing their proliferation seems to have some relation to sexual activity.

Fibroids are primarily interstitial or intramural, the capsule being a secondary development due to the mechanical pressure of the growing tumor. Small fibroids are often devoid of capsules.

Uterine fibroids possess what is termed a "collapsible circulation" just as the normal uterine tissue or other tidal organ does; that is to say, the uterine capillaries possess a wall made