

CHAPTER 20

FIBROGENESIS

Fibrogenesis may be general or at least at points quite distant from the source of the fibrogenic agent. Thus an infection that has become scarred-in and silent may still exist in a comparatively anoxic focus so as to evolve products of its metabolism that do not have a chance to be oxidized away, but form free radicals that can polymerize at the focus, or may enter the circulation as such. Hypoxia, in any parenchyma, subject to exhaustion from over work will also cause incompletely combusted metabolic products to be formed and exist as free radicals, which may co-polymerize with the product coming from the infectious focus. Thus there will be located at this distant point a co-polymer of incompletely burned metabolites of germ and tissue cell origins which, being irritant, call for the production of a protective fibrosis as occurred at the point of infection in the first place. The toxic polymer is taken up by the collagenous material of the fibroblast and enters into the structure of the fibroblast as a free radical addition to a double bond that invites oxidative removal just like the pathogens added to the tissue cell's FCG invites oxidative separation and destruction. But the fibrosis increases with toxic increase and progressively the fibrosis shuts off the circulation more and more causing a progressive vicious circle. However, when the toxic factor is burned away through the induced oxidation, the rest of the fibrosis has no reason to exist. It is obsolete and undergoes autolysis. This is our Conclusion, after seeing such recoveries as in Case No. 55.

This type of fibrosis is different from the fibrous connective tissue of normal sheaths and tendons for it contains the incompletely burned metabolites which still invite oxidation, and thereby dissolution. On the other hand, the normal collagenous tissues contain chondroitin sulphate and hyaluronic acid and other polysaccharides, which are insured against combustion by the cyclization of the Carbonyl group that is also flanked by an amine group. Thus the skeletal structures are quite "fireproof" while the scar tissue that combats infection and toxic states is open to disintegration via oxidation. The pathogenesis thus again provides for its correction. While our Oxidation Catalysts may clear up a fibrosis of coronary insufficiency or renal and cerebral insufficiency, they do not touch the normal structural fibrous connective tissues. Oxidative destruction of germ toxins makes the germ non-pathogenic, in our experience, and this of course prevents pathological fibrosis.

The pathogenesis depends upon sub-oxidation and toxins of various kinds. Cartilages are subject to dissolution; however, not because they contain built in oxidizable units, but because of their colloidal adsorption characteristics and poor oxygen supply. Here toxins coming from a distance can be ADSORBED and held to call forth a fibrogenic invasion which will destroy a joint cartilage, for example. Such invasion is accompanied by angioblastic tissue. Together, they destroy much of the joint structure and cause ankylosis. There is enough cartilage left to initiate joint reconstruction after the invading fibrosis is reversed by the oxidation of the toxic units built into its fibers. The pathogenesis thus again provides for the restoration of normal functioning tissues, following the institution of an efficient Oxidation Catalysis.

To keep the tissues young, elastic, oxic and efficient, one eliminates all infectious foci, no matter where they reside and one avoids the fatigue of any functioning tissue or activity, beyond what

can be well supported by oxygen and the catalysts involved. The ordinary industrial, road dust and smoke poisons (smoke from arsenic laden tobacco), as we pointed out many years ago when the tobacco mosaic became a menace, are common fibrogenic and carcinogenic factors. The dual nature of substances of this class is seen in the dissolution of a scar following the disappearance of a neoplasm that developed at a distance, and the transient repetition of the symptoms associated with the infection before its encapsulation by the scar. The joints may also be protected, and the vocal cords of singers may be helped to hold their very fine elastic and sensitive muscle qualities. All vital organs may be protected. See the Chapter 27 on diet.