

affections. This question can be easily answered. In the first place, the abstraction acts spoliatively, diminishing, as the name implies, the quantity of blood, both in the part and system. Secondly, it weakens the power of the heart, and thereby prevents it from sending the blood with the same force and velocity into the suffering structures. Thirdly, it unlocks all the emunctories, and thus promotes secretion. Fourthly, it disgorge the vessels at the seat of the disease, restores the circulation, and places the absorbent vessels in a better condition for the removal of effused matter. And, last, but not least, it favors the action of other remedies, as purgatives, diaphoretics, diuretics, and anodynes.

But it will be said that all these effects may and can readily be induced by the agency of other remedies, as aconite, veratrum viride, digitalis, mercury, and tartar emetic, and that, too, at much less cost to the system. That these articles are powerful depressants, lowering the heart's action and promoting secretion, no one at all acquainted with their virtues will question; but I deny that they exercise the same beneficial impression upon the vessels at the seat of the inflammation. When blood is drawn freely from a large vein at the bend of the arm, from a large orifice, to an approach to syncope, the vessels at the seat of the morbid action are unloaded, often to such an extent that the affected structures do not exhibit any marked difference in color from those in their immediate vicinity. Thus, for example, in violent conjunctivitis the mucous membrane, the seat of the disease, always, under such circumstances, presents a perfectly blanched appearance, however red and engorged it may have been the moment before. Now, what occurs in the eye, in such a case, may reasonably be supposed to take place in any other part of the body when a patient is bled to a similar extent. In pleurisy, one of the immediate effects of the copious abstraction of blood is a mitigation of the torturing pain which forms so prominent a symptom in this disease, due, evidently, to the diminished calibre of the vessels in the pleura, previously in a state of complete repletion. Has any one ever witnessed such an effect from the exhibition of aconite, digitalis, veratrum viride, or tartar emetic? Never. No matter how these articles may be administered, whether singly or variously combined, they are simply depressants, not depressants and evacuants, as the abstraction of blood from a vein or an artery; there is no blanching of tissue from their use, no unloading of distended and crippled vessels,—indeed no direct appreciable effect of any kind.

The more recent researches in pathological histology furnish a hint not easily to be mistaken as to the most salient treatment of inflammation in its earlier stages. The leading indication is to restore the paralyzed capillaries to their normal tonicity, so as to prevent structural changes in their walls, and facilitate the outward passage of the white globules with which they are choked. It is now well known that in every inflamed area there is marked hyperæmic distention of the blood vessels, which are often crowded to their utmost capacity with leucocytes,

which emigrate through the vascular walls, and, in conjunction with the effused blood-liquor, constitute the most important elements in inflammatory deposits. Hence the object of treatment should be to restore the capillaries to their normal calibre through the artificial induction of contraction of their walls,—an effect which can be brought about, as is daily witnessed in many of the external inflammations, by cold applications, which, as is well ascertained, produce reflex contraction of the vessels. In inflammation of the more deeply-seated organs and tissues, however, this object can only be attained by spoliative bleeding, whereby the affected capillaries are relieved of their contents. In this way only can their tonicity be restored, the further effusion or migration of cell-elements restrained, and the absorption of existing deposits favored.

Another effect of bleeding, not to be overlooked in this discussion, is the diminution which it causes in the quantity of fibrine and white globules, so remarkably augmented in inflammatory affections. This change, of which I have witnessed many examples, was beautifully illustrated in the case of a young man, nineteen years of age, whom I attended along with the late Dr. Charles Woodward, of Cincinnati, on account of a severe attack of pleurisy. Blood was drawn on three consecutive days, the first bleeding being performed about thirty-six hours from the commencement of the attack. The fluid, amounting to nearly a quart, was not only greatly buffed, but cupped on both sides of the crassamentum, as is shown in the specimen which is still in my possession. At the second operation the fluid was buffed, but not cupped; and at the third it was merely a little sized, all pain and active inflammation having by this time disappeared. If such effects follow the use of the articles above mentioned, I am uninformed of the fact.

In leeching and cupping, blood may be taken directly from the affected structures, or indirectly, as when they are practised at a distance from the seat of the inflammation; in the latter case the effect, if carried to a great extent, is similar to that produced in venesection, but generally much more tardy, and, therefore, in the main, not so efficacious. When the tissues are divided, as in incisions, scarification, or puncture, the vessels are directly drained of their contents, an operation often followed by great, if not permanent, relief. Illustrations of the efficacy of this mode of depletion are daily witnessed in tonsillitis, in erysipelas, ulcers of the extremities, inflammation of the uterus, and in impending mortification, not to mention other affections.

I have said that general bleeding can be successfully practised only at the beginning of an inflammatory attack, a fact which, I repeat it, is not to be lost sight of in weighing the propriety of such a procedure. Let it be borne in mind also that bleeding is not to be practised indiscriminately, but judiciously and with proper regard to the condition of the system. Our fathers grievously erred, because they bled in every stage of disease, and in all states of the system, the plethoric and the