The operative treatment of chronic intestinal stasis

Lane William Arbuthnot
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THE

OPERATIVE TREATMENT

OF

CHRONIC INTESTINAL

STASIS

BY

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PREFACE.

IN the two preceding editions I employed the title "Chronic Constipation" instead of the more comprehensive and scientific term "Chronic Intestinal Stasis." I did so for the reason that the delay in the large bowel is the primary or causal factor of the condition, and because the title Chronic Constipation at that time called for less explanation than that which I have now rendered familiar to the profession. The chapters by Dr. Jordan, Dr. Nathan Mutch, and Dr. James Mackenzie will serve to make the subject clearer from the radiological, bacteriological, chemical, and clinical aspects.

W. ARBUTHNOT LANE.

21, Cavendish Square
1915.
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THE OPERATIVE TREATMENT OF
CHRONIC INTESTINAL STASIS

CHAPTER I

In order to consider the subject of chronic intestinal stasis in any detailed manner, it will be best to deal with it from its very beginning, and I shall commence by reminding you of several most important general laws which I formulated many years ago with regard to the skeleton and its articulations. I shall then proceed to demonstrate that precisely the same laws govern the soft parts and modify their structures, and that a knowledge of the several mechanical conditions which bring about chronic intestinal stasis is largely dependent on a recognition of these fundamental principles.

The skeleton represents the crystallisation of lines of force which when exerted in a single direction are laid down as compact tissue; when in varying directions as cancellous. In young life any alteration in the length of a long bone following on a fracture in which the fragments have not been replaced in accurate apposition results in the formation of a new shaft and the absorption of the old one to an extent which varies with the alteration in the form of the bone. This process takes place in a degree inversely proportionate to the age of the child. The same important fact holds good also of changes which develop in the abdomen. Later in life a lesser, but similar, change may be brought about by the artificial engorgement of the part.
with blood, and much of the deformity and shortening which would otherwise occur can thus be obviated.

It follows as a complement to this latter law that "the rates of bone formation in the several portions of a growing line vary inversely as the pressure transmitted through them," and, incidentally, it is by the exercise of these mechanical principles that Nature reduces to a minimum

the harm done by the incapacity of the surgeon in the treatment of fractures in young life. The accompanying skiagrams illustrate the action of these laws:

Fig. 1 represents a fracture about the lower epiphysis of the humerus with backward displacement of the fragment. Six weeks had elapsed since the injury. A dark zone extending vertically upwards from the epiphysis behind the shaft indicates the commencement of the crystallization of the lines of force.
Fig. 2 represents the condition three months after the injury. The perceptible layer of callus extends a greater distance up the back of the shaft. The shadow formed by it is much darker, equalling that produced by the original shaft.
Fig. 3 shows the part six months after the injury. The range of flexion has increased partly by the absorption of the end of the shaft and partly by that of the coronoid process. The layer of new material, which is extending

much farther up the shaft, is denser, while the shaft is relatively lighter.

Fig. 4, taken sixteen months after the fracture, shows that flexion is still further increased by progressive absorption, while the changes already noted in the original shaft and in the new formation are much more marked.