

given. If an examination reveals no obstruction, then there must be a want of tone or power in the large bowel to carry the contents along in the proper time. In the commencement of these cases also, we must first see that the colon is cleared of any faecal accumulations, and let me repeat, do not depend on purgatives for this purpose. Purgatives, as taken, are the bane of the human family. After cleansing we must use means to strengthen the muscles of the large intestine, and enable it to properly perform its function, and while this is being done, care must be taken to correct any habits of the individual which may predispose to constipation.

The principles of treatment which we would apply to a weakened voluntary group of muscles are proper for a like condition of the muscular coat of the large intestine. To promote circulation and excite muscular contraction, and also assist directly in propelling the contents of the bowel, we can use massage; at the same time we can add another stimulant, by applying electricity. We have medicines which act directly on the motor centre of the muscular coat of the intestine, this motor centre being the plexus mesentericus of Auerbach, located between the two layers of muscular fibres in the wall of the bowel. (Lindois.) Aloes is a type of these medicines. Nicotine also acts directly on this centre, and promotes peristalsis, hence the pleasure in an after dinner cigar. Other medicines act indirectly through the cerebro-spinal nerves. Strychnia, for instance. The impressions are carried to the plexus mesentericus through the cerebro-spinal nerves, which stimulate this centre, and contraction of the muscular coat is the result.

In this same indirect way, we can promote peristalsis through volition. Our aim in stimulating the muscular coat of the bowel should be to bring about natural contraction, and not spasmodic action.

The natural contraction of the bowel is indicated by the term peristalsis—contracting in successive circles. In this the contraction is gentle, and passes in successive means along the bowel, propelling the contents without irritation to any part. To promote this action we must be careful not to give medicines in too large doses. If the dose is too large, it will cause spasm, which will retard the passage of the contents, and by this hyperstimulation increase the paresis. So, in giving colon tonics, we must begin with small doses and slowly increase until we get the desired result. While we are thus toning up the bowel, we must keep it clear of any faecal accumulations. For this purpose salines are our best remedies, but care must also be taken with these not to give too large doses, or you will do harm. A goblet of water, with thirty to sixty grains of sulphate of soda in it, taken on rising in the morning, will be carried rapidly along the alimentary canal, and not overstimulate either the muscular or glandular system of the intestine, but will evacuate the large

intestine. The quantity of soda in the water renders it more alkaline than the blood, and prevents absorption, and at the same time is not so alkaline as to cause any appreciable flow from the blood into the bowel; and this quantity of water taken on an empty stomach is of sufficient bulk to promote peristalsis, and it is carried rapidly to the large intestine, where it liquifies the faeces, and causes a free evacuation. Salines may be taken in this way for a length of time without harm. They do not tone up the bowel, nor do they in small doses weaken it, except as we weaken any muscle by relieving it of work. When the contents are made fluid, only slight peristalsis is necessary to evacuate them. When the large intestine is inflamed or ulcerated at any part, we should give salines alone when necessary to evacuate it with medicines. The atony in chronic constipation may not affect the entire large bowel, but may be confined to the rectum and sigmoid flexure, or to the latter and descending colon, and great good may be done by stimulating injections. Sometimes we seem to get better results by giving the medicines by rectum instead of through the stomach. In selecting medicines to relieve chronic constipation, we should be careful not to punish the liver and small intestine for the sins of the rectum and colon. Unless we are certain that there is not sufficient secretion from the liver, we should not add a chologogue to the pill; and if we think the contents pass from the stomach to the colon in three hours, we should not stimulate the small intestine.

If atony is due to centric disease of the nervous system, the remedies must be directed there, but at the same time care must be observed to keep the colon and rectum clear. I will not attempt to give formulas, nor speak of the medicines proper to give in different cases of chronic constipation. This can be determined only by studying each case by itself, and knowing the physiological action of medicines.

THE ABUSES OF MILK DIET IN THERAPEUTICS.*

By ROBERTS BARTHOLOW, M.D., LL.D.,
Professor of Materia Medica, Therapeutics and Hygiene in
the Jefferson Medical College.

The therapeutic employment of milk, not only has been popularized, and the lay public made familiar with its various adaptations, but in the wake of the general appreciation has followed the usual exaggerations, and hence it is prescribed with little regard to the conditions properly requiring it. Under these circumstances it seems desirable to indicate the limitations of this therapeutical food, and to show wherein it may be hurtful rather than beneficial.

In certain disorders of the digestive functions, milk causes a sense of discomfort, decided uneasiness, oppression—sometimes even pain, and it

*Journal of Reconstructives, July, 1887.