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On Astringents

Their Use and Abuse in Diarrhoea

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In this paper I propose to look back  
on my four years practice, to gather up  
and state the results of my experience during  
that time, how far I have failed and how  
far I have succeeded with Astringent  
medicines in the particular disease <sup>et alia</sup> above.

Astringents then in this case are  
these medicines which, when taken by  
the mouth conbringe muscular fibre,  
cause contraction of the capillaries, form  
up the parts over which they pass, and  
help to coagulate albuminous tissues.

When absorbed they produce some  
alteration in the character and  
composition of the blood, and this  
blood, <sup>being</sup> loaded with Albumen it makes  
it much more ready to coagulate. The  
vessels containing the blood being made  
up partly of muscular fibre are so far  
contracted as to cause a diminution of the  
of ~~the~~ secretions from the different organs  
excreting surfaces throughout the body  
and so these secreting organs, having  
ducts opening into the alimentary

canal as well as those glands over all the surface of the canal itself have their supply of fluid so far cut off and their function under the use of Astringents partly suppressed this being the general effect of Astringents in health we can readily see how when applied they will tend to restrain excessive discharges from mucous membrane and organs when in a disordered or diseased condition.

I will now proceed to define what we mean by Diarrhoea and how and in what particular forms these remedies are applicable.

Diarrhoea may be said to be an excess of function of the intestinal canal in which the evacuations are frequent loose. Individuals differ very much with regard to the frequency of their evacuations. A person may therefore be said to suffer from Diarrhoea when there is a more than usually frequent and fluid discharge of the faeces, and when we consider the

extent of the Intestinal Canal, the  
variety of organs and the various kinds  
of material from food & the <sup>secretions</sup> such as  
from the stomach as well as the secretions  
from the Liver & Pancreas and Blandular  
system along the surface of the tube. We  
will easily see that the causes of this  
disordered function may be varied,  
and so also much diversity in the matter  
evacuated as well as the particular  
part from whence that matter is derived.  
It is well known also that disease in  
remote organs, and emotions of the  
mind sometimes cause either a de-  
termination of fluid into the intestines,  
and so much constitutional irritation,  
as to increase their peristaltic action.  
Thus we have two different sets of causes,  
viz. those which act on the canal itself  
and those which act either from sympathy  
or from the relations which the bowels  
have to the whole system, <sup>which</sup> occasion an  
increased action of the intestines, with-  
out transferring any stimulent matter

from the diseased part to them.

Another cause we may state to be, the absorption of certain poisons, from without by inhaling noxious vapours such as that from decaying or vegetable or animal matter. Perhaps at this stage I ought to mention the condition known as, Tenesmus when we have frequent evacuations, without an excess of discharge at least in my experience I have rarely found, chemically that the amount of evacuations during the twenty-four hours, exceeded the amount in health. This is an affection, which does not in my opinion, require the administration of Astringents, and have found it most successfully managed by the administration to the <sup>Rectum</sup> of emollients and sedatives.

In considering Diarrhoea from the first set of causes, with regard to the use of Astringent medicines, I have been led to the conclusion that before applying any Astringent medicine,

I must first remove the materials  
which may be the exciting irritant  
This in a great many cases I have  
found to be food improperly cooked  
or given in a stale condition, or taken  
in too great a quantity as exciting cause  
of this disease. I have found also that  
even when proper food was taken but  
the stomach weak, that the food passed  
from it into the bowels, in such an  
imperfectly digested condition, as to  
become irritant. These cases usually  
come on suddenly, are accompanied by  
gripping pains, and sometimes vomiting.  
Astringents here are of no use, until  
the canal has been cleared of the  
offending matter, but I find the  
best thing to do is to use sedatives,  
in the first instance to allay the  
vomiting, and relieve the spasmodic  
action going on in the bowels, the best  
of these in my hands has been  
Hydrocyanic Acid, Chloroform & belladonna  
with counter irritation outside, then a

gentle purgative, such as Castor Oil,  
or small doses of frequently repeated  
of Magnes. Sulph., I have been disappointed  
with Rhubarb in these cases especially  
if there be any nausea. If the irritation  
and looseness continue after this, I  
give Astringents combined with  
sedatives such as Chalk & Opium with  
perhaps catechu or Kino alone in Infants.

I see a great number of Children  
suffering from this cause, and I am  
sure a great deal of <sup>the</sup> Infante mortality  
of this city is due to the use of food  
either unwholesome in kind or bad in  
quality. Like most Young men fresh  
from College I had great faith in  
Catechu and Chalk mixture, but I  
was speedily disappointed and had  
great difficulty in learning to prescribe  
with benefit in these cases. When I  
find no vomiting, stools chummy, and  
containing curdled Milk — I find it  
best to give Hydrarg. Cretae Sodae Bicarb  
and Pulv. Speac. Coi, if the upper part

of the canal seems to be irritable and vomiting. I use Bismuth instead of the Astringent, if the Mucous Membrane of the mouth be particularly irritable. Tota's Chlor, Sy-Rhu, and Cinnamon water. If head symptoms be threatening I keep out the Rhubarb & put in Tota's, Bromide. Suppose there is a sour state of the evacuations, and especially they come away with force, and accompanied by pain, and perhaps vomiting by far the best remedy in my hands, has been the Bisulphate of Soda with liquor Turaxaci & Cinnamon Water. Direct Astringents in these cases I believe to be pernicious even Rhubarb from its after-Astringency has sometimes been the cause of serious head symptoms but if the cure be obstinate, the cause removed, and no threatening nervous symptoms, then the direct Astringents would be needed, and might be of use.

Another frequent cause of

Diarrhoea is a derangement of the functions of the liver either by congestion of the Portal Veins, causing an obstruction to the return of the blood, <sup>from</sup> the intestines, or an increased flow of bile from the Hepatic Duct. In the first of these cases we have a congested state of the veins, along the whole canal, thus stimulating all the Glands, over the surface to increased and perhaps, <sup>and</sup> altered <sup>secretion</sup> and this secretion being thrown into the cavity of the bowel, altered in character and increased in quantity does not mix in the same proportion <sup>with the other</sup> normal materials, passing along and so becomes an irritant and causes an increased Peristaltic action. A case of this kind occurred about a year ago in my practice, a Soldier who had been for some years in India suffered from enlargement of the Liver now and then it seemed to get into the state indicated above and the result was obstinate, what might be called,

Dysenteric, Diarrhea. The stools were frequently loose, and composed of slimy mucus and blood, mixed with a varying proportion of liquid faeces. The motions were preceded by griping pains. This man had once been robust but was now weak and anaemic. He had tried all kinds of Astringents but without any benefit. I ordered a powder containing Mastic Hydromg, Spicium, Aromatic Powder with a small proportion of catechu to act as a guard. I am glad to say that this medicine was completely successful. He called upon me recently & stated that whenever he has an attack of his old complaint he resorts to the powder with complete & speedy relief.

— In the 2<sup>d</sup> class of cases when there is an increased flow of bile from the liver; here we have no congestion of the bowel itself, but this secretion

being abnormal in quantity and perhaps also in quality stimulates the intestines, to increase peristaltic and it may be spasmodic action. In these cases I find the patient has not been well for some time (more or less) previous, complaining of a dull headache, no spirit to do any thing, out of temper, furred tongue constipated bowels, with pale evacuations, loss of appetite creeping uneasy sensation about the right scapula with a dull aching pain in the right shoulder. This by and by reaches a crisis, the pent up bile can no longer be retained but comes away into the bowels, causing intense irritation, and looseness, the stool being composed chiefly of bile with a small proportion of mucus and faeces. can anyone say that astringents can be useful in this case until the irritant material was removed? In my opinion,

They would do positive harm & I simply give sedatives such as Chloric Ether, Morphia and if complicated by vomiting Hydrocyanic Acid.

If the Diarrhoea be dependent on a diseased state of the glandular structure of the bowels, such as we find in Intermittent Fever or from decomposition of Tubercle Astringents may be of great value, but should be used with caution. I never use them except the case be urgent and long continued. In Intermittent Fever I find Dovers Powder the most useful and it can scarcely be said to be an Astringent. The Specacuanne in my opinion, counteracts the astringency of the Opium and is of great service in these cases.

In the case of children I prefer the Bisulphate of Soda; if <sup>for the</sup> these Acetate of Lead & Opium seems to be the best it acts I think more as a sedative than an Astringent.

I saw one case lately complicated with vomiting and hiccup, speedily brought under control with Nitrate of Silver. In Tuberculous cases I find the Acide Hydrocyanic mixture before mentioned the best it tends to allay the cough and quiets the nervous system in such a way as to allay the irritable state of the bowels, and I seldom require to use stronger measures, but if so then a mixture of Catechu Opium and Chalk Mixture, if this fails then the Acetate of Lead as above.

In Chronic Inflammation and perhaps disorganization of the Mucos Membrane Tannic or Gallic Acid is of use but I find more good from Nitro-Hydrochloric Acids with Chlorate of Potass and when there is nervous exhaustion add Nuc Vomica and Columba this mixture is also very useful in these cases when.

The Diarrhoea is dependent on  
Dyspepsia when I think the  
stronger Astringents would be  
quite inadmissible.

With regard to those cases of  
Diarrhoea arising from sudden  
change of temperature or from  
mental emotion the use of  
Astringents may be demanded  
but I find it best first to endeavour  
to determine the blood to the skin  
in the one case by using Dovers  
Powder and in the other by  
allaying that irritation of the  
nerve centres which is the real  
cause. Rather than give Astringents  
I prefer keeping the patient in the  
recumbent position and restricting  
his diet to farinaceous foods  
these failing and especially if  
the case has passed into a  
chronic form I employ Astringents  
combined with Sedatives such as  
Fulo Kino or Acid sulph and

## Tinct. Opii

I have never seen a case of true Cholera but I have had 2 or 3 cases. of very severe vomiting & purging accompanied by cramps, cold extremities, of canary coloured stools after trying various medicines, I found that nothing did better than Tinct. Camph. Co. with Magnes Carb. and with this I have been very successful.

In the foregoing I have endeavoured to show which place Astringents should occupy in the ~~plc~~ treatment of Diarrhoea. In every case the real cause should be correctly ascertained that being done the remedy should be chosen which will act directly on that cause by Sedatives &c. after removing the exciting cause little else I find required to be ~~found~~ done further than restore the tone of the bowels and as a rule. Tonics combined

with Astringents are of the  
greatest value.

Prof Simpson