Thesis

on

Infantile intestinal irritation.

By A. F. Rosa.
The above title has been selected as being the most correctly applicable to the condition which I propose to discuss in this paper. The condition itself is that affecting infants and young children, in which there is an accumulation in the intestine of coagulated or solid material, which has become more or less fixed or lodged so that it cannot be removed by the natural intestinal peristaltic contraction. This accumulation of coagula ultimately producing irritation, mechanical or otherwise which gives rise to the symptoms.

In the first place, it would be as well to consider some of the synonyms which are frequently applied to this affection. Although I suppose one must class it under the heading of Enterosis yet that term and Catarhal Enteritis appear to me to indicate that there is a pre-existing inflammation of the mucous membranes, and does
not differentiate it from the form in which there are no coagula.

And in addition to that the lining membrane may in very slightly affected compared to the severe symptoms produced, and the symptoms may entirely disappear on removal of the clot.

I have learnt this condition also as "those cases of diarrhoea" or as dyspeptic diarrhoea. But these terms are hardly applicable as diarrhoea is not a constant symptom. Frequently the reverse is the case i.e. obstinate constipation and if diarrhoea is present it can be checked without alleviation of the general condition.

The term want of breast milk which is often used is incorrect also as many cases occur while they are being reared entirely on the breast. I will enumerate the synonyms more fully further on when discussing the cause of death.
The importance of the subject cannot be overestimated, when one comes to consider the high death rate that exists among infants under a year or eighteen months, and it was this that led me during my earlier years of practice to investigate the subject as fully as possible. That the condition under consideration is very common and probably accounts for a large proportion of deaths among infants is undeniable. And when one observes the diversity of symptoms produced and the differences between different cases, it is more than likely that this is the initial cause and beginning of many illnesses the etiology of which is ascribed to the organs or parts most profoundly affected, as the kidneys, skin, blood etc.

Intestinal irritation may occur from a few days after birth to eighteen months or more, but is probably most common from about one to eight or nine months, that
is during the usual period of lactation, especially the earlier months. And these infants, most commonly affected are the smaller babies; but not exclusively so, premature infants, especially those reared on the bottle, and as have before stated is also quite common in cases where the breast is the only food. The time of year in my opinion has very little to do with it; although diarrhoea is more common in the autumn. I cannot say I have observed it so arising from this cause.

The duration may be from a few days (or hours) to many months. The recovery is generally gradual. And there is a great tendency to relapse if attention to the bowels and regulation of the diet is not strictly enforced.

As above indicated pubertal slow growth, weakness of digestion are predisposing causes. The direct cause may be the administration of some form
of milk (or coagulable materials) in such a state or manner, that complete solution of the coagula cannot be accomplished. By administration of food un suited to the digestion, as starchy food, e.g. Indian flour, the little particles producing irritation, which by upsetting the digestion delays solution of curdled milk. Also too frequent administration of food which coagulates before digesting, as the introduction of another supply of milk before the previous one is digested and has left the stomach, thereby upsetting the balance, half digested curdled milk to live in mixed with newly curdled. This is a very common cause.

General appearance — The symptoms which are complained of by the parents may be diarrhea, restlessness, (sleeping at night), fits of crying, convulsions, scanty urine,
dropsy, malnutrition, flatulence or vomiting. Generally we find that the child has been getting thin although not always observed by the parent. The muscles are lax, the head may fall to the side, pallor, desire to be nursed, with restlessness and general flaccidity. Fits of crying, screaming, or if further advanced, whining and in far advanced cases indications of pain are expressed only by facial contortions. These attacks which of course indicate colicky pains, are intermittent, and are accompanied by drawing up of the legs. There is generally exhibited little interest in surroundings, apathy, indifference and an anxious expression of countenance. Finally the eyes are hazy, in advanced cases dimmed, hollowed around and there is a lack of the usual rounding of the features, the facial grooves being more marked. The cranial
ictures are more obvious and the fontanelles are depressed. Emotions are commonly present. The abdomen is distended sometimes or may be contracted, usually flatulent distention, never however much enlarged. In advanced cases especially when diaphoreasis is present there is frequently lustiness or lividity of the head, forehead and temples. The temperature is usually at or about normal, sometimes but rarely increased but more generally subnormal and the pulse has a tendency to get weak and rapid.

The Symptoms may be divided according to the different systems into Alimentary, nervous, integumentary, circulatory, respiratory and secretory.

Alimentary. -- Usually there is anorexia, or there may be a constant desire to take food while awake, although little is taken at a time. The breath is often sour, and the tongue may be coated and dry; but much more frequently raw and affected with aphthae. This
is a very common accompaniment, especially if the condition has lasted long before producing evident symptoms, or come on gradually as it usually does. Flatulence, expectorations and vomiting are very frequently present, and so is diarrhoea. Little drops of watery motions passed, tend to greenness, and the child requires to be frequently changed. Soils every cloth, but the motions are not often offensive at this time unless medicine is given. Frequently there is constipation the bowels are difficult to move without a purgative, which tends to pass through them without removing the cause. Usually the different motions vary greatly especially while under treatment, generally little stained with bile, pale putty coloured, stringy and sometimes darker and mixed with green, probably due to altit
Blood. On administration of a
fungative, usually gummed pads
perhaps bile stains a little and
smallish pale soft clots with
stringy mucus. When an
efficient dose of medicine is
given there is mostly produced
offensive stools, often a very
jetrid froth, which may be follow-
ed by the evacuation of the clotted
material. Frequently it is more
troublesome, the clearing act is
only partial, in this case the
stools revert to the original mixed
whitish clot, and stringy mucus, and occasionally bile stains. Should
the clots be dislodged they are
generally very dark greenish or
blackish sometimes very large
up to about the size of a hen's egg or
even bigger in very young babies
and the evacuation of tumour is
accompanied by relief of symptoms.
Sometimes complete ressival. The
child immediately takes interest.
in surroundings, is able to take food, face a bitters colour, eyes brighten etc etc.

Nervous System. — Its system is more subject to be infected by another than the nervous system is by alimentary disorders. There is every evidence of this, as for instance muscular cramps (gastrocnemius) due to gastric irritation, melancholia in ascitic dyspepsia, convulsions from intestinal parasites and restless in irritation of the stomach from cheese eggs and shellfish, produced reflexly through the nervous system. And in the case under consideration from lodgment of clot in the intestine probably the most prominent symptoms next to the alimentary are the nervous, and these may be exhibited either in the form of diminished or increased activity. Apathy and listlessness may be taken as example
of the former and convulsive attacks as an example of the latter.

The nervous symptoms most frequently produced are restlessness, sleeplessness, and irritability. There may be convulsions, but not in the large proportion of cases; although I believe that this is the most frequent cause of fits in infants. Squinting or divergence of pupils may be observed. Turning of thumbs into palms and turning down of toes also are indications of nervous irritation. Vomiting is certainly a reflex nervous symptom in many cases, although it may be due to other causes, as irritating nature of food taken into the stomach, or excessive quantity, or catarrhal or otherwise irritable state of the stomach itself.

After the nervous system the intestinomotor is probably the most subject to be disturbed.

An early sign is the well-known
military eruption. The stomach rash, minute and round papules dotted over the skin, frequently of the face neck, back, mates and legs. May be all over and is very changeable disappearing and reappearing day by day. Generally fading on administration of an aperient, and tends to coalesce especially about the joints of the neck mates and elsewhere. Sometimes tending to suppurate joining minute yellow heal and by enlargement of individual papules and penetration to deeper layers of the skin producing ulcers which were very marked in one or two of the cases I have seen. This eruption is frequently aggravated about the buttocks and legs by the frequent passing of irritating motions. The skin becomes generally red in this case, scalded, and inclined to break by flexing or cracking, and if neglected rapidly produces a raw inflamed surface which adds greatly to the distress already
present. The military eruption above
referred to is a very good indication
as to the presence of chlo, and being
so fugacious can often be relied
upon when it disappears, as a sign
that the intestinal canal has been
clean. In far advanced or long
continued cases there are sometimes
more severe affections of the skin.
I have seen occasionally bullae
surrounded by inflammatory edema,
these drying up or breaking tend to
form sores. This eruption is not
eczema, and is mostly seen on the
abdomen or back, and there resembles
a burn. I have also seen it about
the head, especially the scalp, and I
consider it a grave symptom, as it
is to be observed in the most intractable
cases, and I believe it is of a scor-
butic nature. Unlike the military
eruption it is very slow, tending to
persist and resist treatment and
does not tend to vary or fade on
temporary amelioration of the
symptoms. Sometimes accompanied by deep seated congestion lividity and thickening of the true skin and subcutaneous tissue. Very apt to be looked upon as of specific origin, although in the two or three cases I have seen, there is no doubt that there was syphilitic taint. This eruption is rather rare and only occurs in very bad cases. Of its scoriotic nature I have no doubt. Pityriasis versicolor is to be frequently observed on the back, but I do not lay any stress on this as it is very common without any concurrent alimentary affection.

Secretory System. — The secretion most frequently affected is that of the liver: suppression of bile. The motions may contain no visible trace of bile, and as a general rule it is greatly diminished if not absent. The liver in one case was jaundiced and markedly fatty and enlarged (probably congenital).
The kidneys are often affected, and this is manifested generally by suppression of the urine, and is frequently accompanied by oedema of the legs, feet, hands, and sometimes the face. The urine is small in quantity, often high-sounding and dark in colour. Suppression of urine is usually due to catarrhal inflammation. I have seen albumen present in the urine and there may be of course due to cold, and it is possible sometimes convulsions may occur. The kidneys may also be affected by absorption of deleterious products from the focus of the affection, or affected by pressure. I have thought it possible as the clot lodging sometimes are very large, and there is sometimes an astonishing amount of these passed. One would wonder where it had all been packed away. Before leaving this subject, I might say that swelling is not uncommon above
The head especially on sleeping, but this is probably more associated with those cases which exhibit an elevation of temperature.

As regards the circulation, the heart of course becomes gradually weaker, especially in protracted cases and the pulse more rapid. There is frequently a tendency to diminution of the capillary circulation in the extremities, as the feet and hands, cold and red, but more usually the feet and hands are pale. The tendency to anaemia of course in very great, and the blood becomes very much diminished in quantity thereby causing shrinking of the more soft organs, as the brain, which is signified by the falling in of the cranial apertures.

Respiratory System. — I think generally this is less affected than any other system, there is little tendency to cough. On the other hand the condition may be accompanied or even set up by a bronchial attack.
Sometimes but rarely the chart is
clouded by an attack of bronchitis or
more frequently Catarhal pneumonia
Superposing

Process of accumulation:—When
the child is being nursed or more or
less carefully land just the occurrence
of symptoms may be sudden; but
this may not indicate that the accumu-
lation is recent. There is on the contrary
every reason to believe that it gradually
takes place without producing sufficient
symptoms to alarm the parents. In
fact I have frequently traced the
origin many weeks back. Very
commonly accumulation commences
after birth without producing much
in the way of symptoms immediately
milks is given, even breast milk.
Evident symptoms appear in a week
a month or more; but it can be
seen that the child is not thriving.
Probably the sudden manifestation
of symptoms previously in abeyance
may arise from impaction and pressure
of the coagula. On the other hand the symptoms may suddenly supervene on account of the occurrence of putrefaction around or in the coagula, which was not always present and consequent evolution of stimulating gases or fluids due to decomposition of the clots. This putrefaction of course may come on gradually. That indigestible material may lie for a long period in the intestinal canal is undoubtedly eventually producing serious symptoms, an instance is recorded at the end of the paper. (I remember an old gentleman having passed grape skins intact after they were eaten, there being bodies being lodged in the neighbourhood of the caecum, again lodging at the hepatic and subsequently at the splenic flexure of the colon). By the foregoing remarks I think I have shown that the accumulation indubitably gradually takes place, and also that the symptoms may not appear until...
A considerable quantity has become lodged. The curdled milk is passed out of the stomach into the intestine and as it passes an absorption of fluids takes place from it, so that the curds become smaller and harder, and they subsequently get agglomerated together in the small, but I think much more frequently in the large intestine. A lodgment of clot in the intestine, besides the simple mechanical irritation, produces results analogous to ptomaine poisoning in the adult from eating diseased meat (i.e., septic absorption and absorption of chemical by-products) and the resultant symptoms in the case resemble those of ptomaine poisoning viz., vomiting, diarrhoea, nervous symptoms, extreme muscular debility and albuminuria. In the event of fruit taken being the cause of the irritation in young children which unfortunately does occur the symptoms are more acute, and generally more
rapid, and disastrous results frequently follow. But to go back to the ordinary case from coagulated ingesta, one has a difficulty in explaining how with moderate doses of medicine or even naturally the bowels move sometimes producing more or less but hardly natural motions, without any unaccountable fever and the result of an efficient dose or series of doses is to dislodge large clots and extremely gelid stools. My explanation is that these coagula distinct the bowel on one side, and the motions pass by the shorter route, washing over but not dislodging the clot from the cul de sac as it were, which they occupy. The decomposition taking place and the gelid material accumulating in the interstices between the clots themselves, and between these and the intestinal wall at the more remote side. And probably this cul de sac, or distended portion
is identical in position with the signs found in the post-mortem.

The post-mortem appearances of course depend greatly on the stage and are as a general rule negative, or rather I should say that there is very little to be found. In an advanced case of course there is general wasting of muscular system and absence of fat; and marked diminution in quantity and quality of the blood, anaemia as of the brain. There is a thinning of the intestinal walls and an absence of fat. These signs may however be present in other wasting diseases; but perhaps the only constant sign is the presence of some localized intestinal congestion or hyperemia most frequently in the large intestine but very marked, but this probably is the site of the accumulation, and the point of irritation. At this point even although the cause is removed, the congestion observed in
The P. ilio. does not probably rapidly resolve during life and thus the part being more sensitive is subject to be more readily irritated by even smaller clots, which irritation produces abnormal contractions in the intestine arresting instead of encouraging the onward movement, and thereby we can probably account for the strong tendency to relapse—especially in cases which have lasted long, and the advisability of our encouraging and assisting the continual onward movement of the intestinal contents. One is surprised that such a delicate structure, especially if a child is much wasting, is capable of all muscular contraction.

The cause of death may be from convulsions which may arise from two causes (1) nervous reflex irritation of the central nervous system (2) or due to toxins either absorbed from the site of irritation or probably sometimes uraemic.
More frequently death is from exhaustion, asthenia, failure of heart, from insufficient absorption of fluids from the alimentary canal, or loss of fluids as in diarrhoea. Death may also occur from scrobutic cause or complications may arise and themselves prove fatal as pneumonia etc.

To obtain an estimate of the number of deaths from this affection, one would require to analyse the cases certified under a number of heads. As for instance taking the report on the eight principal towns of Scotland, how many of the deaths given under the foregoing heads, especially of children under one year are capable of being traced to this cause, I am of opinion that most of them are - Want of breast milk, tetany, convulsions, diarrhoea, enteritis, gastro-enteritis, atrophy and debility, inanition (malnutrition), premature birth. Of the last only those of course
That have lived some time after birth.
I also believe that some find there way under the headings, 
takes, mastoiditis and meningitis.
My reason for believing this is that
I have known cases of intestinal
inflammation which ultimately re-
curred, described by medical men
as consumption of the bowels. Some
others might be added to the above list,
but sufficient has been said to show
that these cases probably form a
larger proportion of deaths among
infants than at first sight would
appear.

The prognosis I have found depends
to a great extent on the capabilities
of the parent or nurse, the care, attention
and the success in the treatment.
Their assistance of taking any kind
of advice from friends and neighbours
who generally are no liberal in
suggesting what should be done
or what must ought to be tried, especially
in protracted cases. If the condition
in long standing or the strength much reduced of course the prognosis cannot be as favourable; but as a general rule they will soon give way to treatment and if the parents are good managers a fatal result should rarely occur.

Treatment. — Under this head one naturally first desires to consider the prophylactic measures which may be adopted, and this practically resolves itself into a consideration of the diet. I think I have mentioned that the retention of the meconium wholly or in part is a very common origin of this ailment inducing indigestion and thus accumulation of clots, and one should always make a point of seeing that in the case of this not being early got rid of that an aperient should be administered without delay. Of course the breast is the natural and best food for a child; but this ailment varies in richness in different mothers, and as I have indicated it is quite common for this.
intestinal condition to be set up while on the breast. In this case attention to the diet of the mother and her health generally. Reducing the quantity of butcher meat and giving light food, milk puddings, etc., sets the matter right mostly, but often one has to have recourse to treatment which will be considered further on as regards the child. If sugar and water must be given soon after birth before the breast milk is obtainable the avoidance of the usual clash of (mutilation) cow's milk which is invariably added if directions are not given to the contrary. This is frequently the direct cause of putting up the mischief. And care should be taken to direct that the breast or whatever form of milky food, should only be given once every three hours, every two hours I think is too often. Attention to the mother nipples, the application of tannic ointment or a similar paraffin ointment without boracic acid, after carefully
drying the nipple frequent. Cracking and scabbing around and in the orifice, and so becomes a prophylactic means to prevent disturbance in the regular administration of food to the infant. A common sequence I have often noticed, although not in cases under my own care, is as under:

(1) Cracked sore raw nipples, with subsequent formation of sores,
(2) Suppurating breast or breasts,
(3) Child takes ill and frequently dies.

Had the nipples been attended to before, neither (1) nor (2) would have occurred.

With respect to those cases in which the breast is not available, probably the lightest of all foods is barley gruel, made as follows. A handful of barley in an enamelled pot, place up to the fire, and keep the barley covered with water from the kettle, simmer by the fire for four hours. Add a pinch of salt and allow to taste. Strain
Through a fine wire sieve and keep in a covered vessel. This makes sufficient for a day. Portions being heated for use in a small enamelled pot. Whole barley still in meal, and it should be washed or rinsed first. And I have found that when this is used additional to the breast, a more satisfactory state of affairs is arrived at. For instance, if a drink is required before the proper time, barley water can be given with the greatest safety, as an additional drink, and is useful also should anything occur to the mother, when it would be beneficial to refrain from nursing for a day or two. I do not however consider barley water sufficiently nourishing of itself to sustain a child for any lengthened period, only as an additional or temporary food, or for diluting milk. At any rate it can be given at any age, in any quantity, and at any time without doing harm.
and can be used as a diluent to
sweet milk by giving some previous
morseling.

As regards hand feeding, sterilized
sweet milk and condensed milk,
the latter certainly in most cases in
the lighter forming the smallerly
and generally agreeing better.
One however finds that in one
case the one does best and in another
the other. Sterilized cows milk
diluted to about the proportion of
two tablespoonsful to an ordinary
bottle in young babies, to about
half and half or stronger as they
advance in age and strength. It
may be diluted with barley water or
this may be given alternately. As
a child grows frequently the parent
find a difficulty in supplying it
with milk when on milk alone.
I have known sixpence worth
of milk given in a day. This I
do not believe is all digested,
and intestinal irritation is very
apt to be set up. In such a case, I recommend some more sustaining food as gruel made from whole oat meal boiled and strained through a sieve, with a pinch of salt and sweetened to taste, taken through the bottle, and here I may mention that I have found that this agrees with very young babies very frequently, and can be given as an adjuvant when other starchy food (i.e., boiled flour) could not be borne. When milk or condensed milk is producible I have seen whey made with rennet, strained, brought to the boil and strained again agree, but does not apparently contain sufficient nourishment alone, therefore the addition to it of a little sterilized milk becomes necessary, and gradually increasing.

One thing to be avoided in old or stale milk, I have seen a nurse keep some secretly aside here, just to give a little to it when it is Troublsome. Un-sterilized milk should of course not
be given, although one finds occasionally a baby thriving on it. Starchy food or boric flour (advertising nostrums) should also not be given until there is a flow of saliva, and especially not start it when the child is not thriving, that is when the child is already suffering irritation from undigested clots. I have seen this produce disastrous results, that is the mother being advised by some neighbour to put it on Somebody's Food. This sort of neighbourly and friendly advice is very trying to a medical man, and it is only by warning the parents previously not to be advised that one can hope to avoid it; especially in prolonged cases, and the temptation of the parent is great when a case is only progressing very slowly, to try something else. Unfortunately one does find that occasionally a stronger diet has the effect of setting up the child, as undiluted milk or some advertised Food, but it is only the one out of many that have been
tried and failed, and this one that survived is the one that is held up as an example. The many other cases where serious result, or death, takes place as a result are out of sight.

It does seem superfluous to say that fruit, vegetables, strong vegetable soups etc. should not be given to infants, but let me refer to the case of this sort given at the end of the paper. (case 37)

I have attempted to show what are the most readily obtained foods suitable for the sort of cases under consideration and as pre-digested, pancreatized, and peptonized foods cannot easily be obtained either from the additional cost, or the trouble of making them, I will not consider them here. The diet I have given can be used from the poorest to richest, the most ignorant to the more highly educated patients in one practice. A diet from which by a judicious selection any case of intestinal
irritations might be carried through.

And now I will proceed to consider what are the best Therapeutic agents, that can be depended upon as being capable of removing the irritation and its causes.

The dislodgment and expulsion of the large clots is perhaps the most important part of the treatment, and may be done by a dose or a few repeated doses of Al. Vioeii, but in many cases this only partially succeeds or fails altogether. Better results are obtained by the use of large doses of Hyoscyamus, etc. etc., and I never give less than one grain in young babies, up to three or four grains as they advance to six months or a year. My usual method is to give two or three of these at intervals of from four to six hours and follow up with a dose of Castor oil, seldom less than a dessert-spoonful, this latter clears out what has been dislodged by the drug powder. I have this repeated...
in two or three days; afterwards regulating
the bowels with a single dose of Hydro. or castor oil as may be necessary to prevent
any further lodgment. In protracted
cases where the accumulations con-
tinue to reform, or where it is most
frequentiy the case the accumulation
is only partly removed, indicated
by continuation of symptoms, pain
from in motions etc., the repetition
of the above doses is necessary two
or three times a week, giving a day or
two rest between. That is two powder
of Hydrag. & castor at day 4 1/2 6 hours
interval and followed later by Castor
oil; then a day or two rest and repeat
the dose as before. I have adopted
this method for some years and have
never observed any reduction of
strength or wasting produced by the
purging. On the contrary when
the dose is efficient the immediate
improvement produced is nothing
short of extraordinary. And is a
surprising comparison to the
Results of treating the condition by means of soothing remedies, or attempting to check the diarrhoea, if present, by means of astringents. Along with this periodic clearing out I usually administer a carminative to relieve flatulence and vomiting and to soothe the irritated intestinal mucous, as follows:

To Bismuth Subnitrate 31 or more

Finet Cardamomum Comp.
Finet Cinnamonum comp. 317

Syrupii Dim. 31

Aqua am 2 3 11

Add a half to one teaspoonful every two hours if necessary — To which may be added T. Scillae, Vin. Spissae, Spirit. Armon. Aromat. etc. if necessary.

For inflammation of the skin about the navel and legs due to the irritation of the motions, the application of Ung. Acid. Borici (B.P.) rubbed up in the palm and spread over the affected part is certain in its effects.

A teaspoonful of cherry to half a
wine glaze of water and sugar is a useful stimulant, if exhaustion is present or for stimulating the appetite, a little pine every two hours. Two or three drops of spirits may be substituted if necessary if the child is very weak. But juice mutton broth, or beef tea may in some and them useful; but are not essential. For thirst a strong mixture of borax and glycerine along with the general treatment may generally be found effective.

\textit{R}. Boracis \( 3 \text{ gr} \) or \( 3 \text{ m} \), hydrarg.  
Cochiae \( 3 \text{ gr} \), Glycyrrhize \( 3 \text{ gr} \), Acq. \( 3 \text{ fr.} \) 
A little applied to the part affected by means of the finger. As silver nitrate, corrosive sublimate in solution may be used.

A warm poultice may be found useful, applied to the abdomen during acute spasm of pain. If there is no bronchial complication open air as much as possible.
The following are a few cases representing some of the forms —

McCall’s case. — This was a typical case. A baby on the breast; two months old, when first called in 2 days it exhibited the following symptoms: Scurritude, vomiting, pains, restlessness, tendency to sleep, temperature normal, coughing and had a cold in the head. Barmitive mixture given of Cinnamon, Cardamomum, Echinacea, & Carminum, Scillare etc added 2 tablets to check the cold. Pears hypodermic to control as order in treatment followed by contrast, produced at first somewhat natural, but offensive stool, bile stained, treated from Homeoan.

Further purging produced very large quantity of dark decomposing clots. These continued to come at intervals for about a week. Sometimes the motions contained no bile & occasionally it was present. As becoming tincture of plantations became natural, soft, yellow,
but continued mucous for several days.

(2) Ellis P.'s case. — This was one in which diarrhoea was the prominent symptom, the rest was being
murred. Head hanging to side, great weakness, palor, eyes hazy, glazed.
No interest in surroundings.
The child was about 5 months old
and the mother desired the diarrhoea
be stopped. I complied with her
request, administering an astringent
go of bismuth and catechu. The day
following there was no improvement;
it was weaker and I had to apply
stimulant: stopped the descent
(serous or two days) saline bicarbonate
and lethargy, also the usual dose of
purgatives, syrup of atropine repeated
followed by castor oil; the result
being that many clots were coming
The child being completely changed
by the following day. Taking interest
eyes bright, practically no pains,
diarrhoea cured etc. etc. was applied
To the breast again and made a complete recovery in a few days, but I continued to give occasional doses of hydrate of carbonic for a week or two.

3) Mrs. D's case. - A rather protracted case which ultimately recovered. This was a very small baby to begin with, and was fed on condensed milk and barley water. Symptoms commenced when about a month old. Whining, pains, had always been settling medicines. Continually passing large clots, mostly white and seldom bile stained. I was not sure about third month, when the symptoms became aggravated, there was playing of the eyes, child was very emaciated, thumbs turned into palms, head hanging, and there was aphthae and rawness of the mouth. Mother said the child vomited everything. Applied the treatment as before stated with Carminative. Immediate improvement after purging - head elevated, Eyes bright,
disappearance of aphthae is less than a week and the mucous membrane of the mouth became normal in appearance. But fivelful now, could sleep well, but I still continue the parasitism about twice a week. Child is practically recount at the present time.

(4) All To Care.—This case was one of those protracted, intractable cases which eventually proved fatal. The symptoms attracted the mother’s attention when the child was six weeks old. It was being nursed, but it was apparent when I was called in that it had been falling off for some time unnoticed. It was considerably reduced and the temperature was very much different. In this case obstinate constipation was the symptom, we had great difficulty in getting a movement, and fecal motions were always diarrhea, occasionally also large black decomposed agglomerated masses of clots. After treating this case for some days
we had to stop the breast, as it was evident that new cells were forming as rapidly as to replace those removed. In fact there was no improvement until the child was fed on whey, even barley water seemed to disagree with it. It recalled and was practically fed on whey for four months, every attempt to add more nourishing food produced a return of the original symptoms. During this period the bowels never moved without purgative medicine, and any delay in administering tended to induce a relapse. When about seven months old there was a return of the original ailment, and it began to fall off again. An attempt to add a little extra nourishment in the way of milk to the whey aggravated the condition and it died at the age of eight months. This child exhibited the Eruption described ante page 14 and 15.
(b) MRS H. S. child case. — This was a female child 16 montks old and when I first saw it, it was in an extremely reduced condition. It exhibited symptoms of advanced gastro-intestinal irritation, having reached the stage in which signs of pain were indicated by screwing up of the face. This is it had gone beyond the crying stage. The principal symptoms were inability to take food vomiting, colic, abdominal pain, muscular relaxation. The mother had administered astringent medicine but it had failed to operate properly. A small fluid motion being the feces, containing mucous and some mucus. The temperature was about normal the pulse full and inclined to be rapid. Nothing could be made out by palpation. The abdomen was not much swollen. There were no pulmonary symptoms. The stools did not react properly at first, the
motions continued slimy, sometimes containing green bile, and an acrid bile was present. After being under treatment for a few days the child passed several pieces of orange peel, and later vomited a whole grape, while according to the mother must have been lying in the stomach for over a month. This grape which was expelled up by oesophageal reflexion in the stomach, was burst on one side and dark in colour, probably due to the action of the bismuth which had been given to allay vomiting. It appeared to be very little affected by digestion and it was apparently too large to pass from the stomach into the intestine. The child died about eight days after I first saw it and the symptoms continued to persist to the end. This case is given as an instance of indigestible substances lodging in the alimentary tract.
For prolonged periods, the symptoms at first developing in a very gradual manner.