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Pathology and Treatment of Ulcer of the Stomach.

Not carefully written, spelling but insufficient pains have been taken to collect the principal details.
This obscure, yet very important disease—important for this reason—that it attacks an organ, the interference of whose functions must necessarily lead to impaired digestion, and therefore to improper nourishment of the system at large; thus rendering the body liable to the influence of most diseases. It is not an uninfrequent disease, and it appears to us somewhat strange—that an organ such as the stomach, endowed with so much sensibility, is not more frequently excited to inflammation in its various forms and followed by its many results. When we consider the various changes of sensibility it must necessarily undergo; owing to the numerous agents; chiefly insects, solid and fluid, hot and cold; bland and irritating, relaxing and astringent, depressing or inflaming—indigestible or undigested comestible—which it is subjected during life, and all these in hurtful variety.
But in fact the true explanation is that the internal being intended to have many progenitors which had been brought into contact with it so as to contribute as little to suffering from their effects as possible in any manner whatever.
and inordinate quantity, producing opposite impressions on it, with extraordinary distention of its coats. The only conditions, which seem to us worthy to be considered sufficient reasons why those various agents do not act on the stomach to produce the effects, which most undeniably must follow their application, any of the many other tissues of the body, are these: first, the stomach, in common with the various other secreting organs of the body, possesses the property of forcing out its own peculiar secretion in increased quantity, when brought under the influence of irritating ingesta, and thus forming a medium between the proper existence of the organ, and the irritating body and so far protecting it from any further irritation, during the process of digestion, which is, at the same time, and for the same reason, rendered more rapid and of shorter duration. Besides also, the stomach, when once the act of digestion is completed and the contents have passed gradually,
through the jejunal opening into the duodenum, passes quickly into that state of quietude and rest, which is most desirable; and the vascular excitement produced by the irritation, may thus soon subside, and the while organ regain its quiescence.

The etiology of this disease is in many cases rather obscure; but the physiological conditions, which predispose ulceration of the stomach, are fully proved to be that of old age, privation, intemperance, fatigue, mental anxiety; from being almost always associated in some form or other with this disease. With regard to relative frequency of each particular condition, they appear to occur in the order above mentioned. Chronic inflammation of this organ is a very frequent cause of ulceration, but for the most part, chronic inflammation leads to hypertrophy of the muscular coats of this organ. Dr. Laycock has mentioned a peculiar kind of ulcer affecting maidervants, which he has shown to
be caused by the malaria arising from the kitchen, in which domestic servants are obliged to pass most of their time, while pursuing their duties; they are exposed to the full influence of malaria from the putrefying animal and vegetable matter present. In the female, the age of puberty and lactation, and its general disturbing effect on health, was believed to be a cause of exciting the production of gastric ulceration, but it is now generally believed (especially since the result of Dr. Brunton's investigations) that it does not so much predispose to the occurrence of ulcers as to a peculiar character and alarming termination; namely, a want of reaction and consequently a very great tendency to perforation. The various specific diseases, such as Tuberculosis, Pneumonia, Syphilis, Ague, and Fever, which have been observed to be present with the ulcer, seem to have less influence than the physiological effects above mentioned.
The peculiarities of the gastric ulcer may to some extent be explained by the circumstances of gastric digestion acting upon the ulcer after it has appeared; as its change in size, and the irritation produced by different kinds of food, as well as the effects of the gastric juice itself upon the partly inert tissue, which form the base and periphery of the ulcer; or upon the partly organized lymph thrown out in this situation. (Dr. Budd's Lectures on Diseases of the Stomach.)

But why one perforates, another cicatrices, while another remains open under the apparent same conditions, cannot be satisfactorily explained by the aforesaid conditions; but this appears rather to depend upon the causation of this lesion, both as regards the system generally, and the first deviation from the normal standard, leading to the local mischief. It is a chronic disease which is subject to more severe attacks occurring at irregular intervals.
The ulcers are generally single, except when they are situated in the follicles. (Eloplandy's Med. Dictionary.) Robinstansky gave the analysis of a large number of cases. It was only in a few of those, that more than one ulcer was observed to exist. They often exceed this number, some cases presenting as many as four or five, but as a general rule (except when follicular) presenting no more than one or two. They are usually round, or oval, rarely assuming another shape, being of a grey or slate colour, which has been much dwelt upon by the French physicians, as being a sure and unequivocal test of chronic inflammation. (Nation's practice of physic.) They are, for the most part, small in size, but often attain the size of a chilli, or even larger, and appear, as if the mucous membrane had been struck out designedly by some sharp instrument, the rest of the mucous membrane quite
healthy in appearance. In some cases, however, the edges are indurated and thick, which, according to Dr. Budd, are generally observed in ulcers of long standing. Its progress is in many cases slow; although in some it corrodes the various coats of the stomach, without any appearance of vascular excitement or inflammation taking place, to cause adhesion of its peritoneal coat to neighbouring organs; consequently perforation takes place with its accompanying fatal consequences. Such is the general progress of the disease in anaemic or cachectic persons, and chlorotic females, but fortunately the greater number of cases do not terminate in such fatal results: for many terminate favourably through cicatrization, without further treatment. This may be more especially due to a strict observance of diet, which the patient naturally follows. In some cases adhesions take place, in consequence of some organ
lying in close proximity to the ulcerated portion of the stomach, and in those cases such an event has proved to be the means of prolonging life.

The liver and pancreas are the organs which we find to be most frequently implicated, although adhesions have taken place; in some instances with other portions of the neighboring visceræ, leading to further life. In some of these protracted cases, death suddenly takes place from copious hemorrhage, following the erosion of some large bloodvessel; failing this, death may take place from gradual exhaustion and protracted suffering, from the constant irritation produced by the ulcer, and its interference with proper digestion. The situation of those ulcers are, for the most part, confined to the lesser curvature, nearer the pyloric than the cardiac orifice of the organ.
The posterior wall of the stomach is far more liable to ulceration than the anterior, as may be seen from a table given by Dr. Brinton, and the same author has stated, that ulceration of the anterior wall is fifty times more likely to terminate in perforation than the posterior. Dr. Budd states that ulceration is rarely ever met with in the splenic end of the stomach, where softening from the gastric juices mostly occurs. The period of life, at which ulceration is most frequently met, is, according to Roikinstansky, beyond the age of fifty; less frequent below thirty. It may be said to never occur under the age of sixteen, although Dr. Budd met with a case in a girl at the age of fourteen and a half.
Dr. Brinton mentions two cases of perforating ulcer, the one occurring in a girl of eight years, the other in a boy of mine. As a general rule, it is more exclusively confined to that period of life between fifteen and sixty. In a fair proportion of cases, it appears that females are more liable to this disease than males, and according to Dr. Rudd, servant maids, between the age of eighteen and twenty-five, more readily fall victims to its attacks. Having dwelt on the general appearance, situation &c., of ulceration of the stomach, as fully as the limits of this short dissertation permit, I now proceed at once to enumerate the various symptoms observed in a well marked case of this malady during life.
In a well-marked case of ulceration of the stomach, the symptoms, we think, came on insidiously; a mere disturbance of gastric digestion being first complained of. This is followed by more marked symptoms, a kind of sourness in the epigastrium, gradually passing into pain; at first but slight, occasionally very severe, and accompanied by a similar pain in the back, with nausea and vomiting of the food or tasteless or acid watery secretions. In most cases there is a disposition to flatulence, accompanied by constipation. The disease may be cut short at this stage, by the occurrence of fatal perforation, which tendency is only manifested in persons anaemic, and chlorotic young females. As the disease advances, hemorrhage from the stomach makes its appearance, sometimes in a gush, but far more frequently in a slow and intermittent drain, leading to
anaemia associated, according to Dr. Brinton, "with a cachexia which seems to be essentially independent of it, being chiefly the result of the imputation necessarily occasioned by the frequent vomiting of the food, or by large destruction of the gastric mucous membrane, and consequent impairment of its functions." In young females there is generally amenorrhoea present, occasioned either by the presence of ulceration or the effects of hemorrhage. By the gradual invasion of the above symptoms, the disease, in a variable length of time, reaches its climax. It may in this condition continue for years, although not in the same state of severity, being liable to fluctuations. Sometimes there are intermissions so complete, as to favour the belief that cicatrization has taken place; but unfortunately, they too often again assume such a form, as to impress as with the feeling that they must have broken out afresh, after cicatrization had taken place.
Not a note. Any report of fever, delirium, or any other such cases where the symptoms are not to be regarded as serious. The fever state along with various local symptoms, pain, dizziness, and other symptoms.
Those symptoms, above enumerated, vary so much in each individual case, that each will require to be treated of separately, or at least the more important of them in detail.

Pain is found to be the most frequent, and decidedly the most important symptom, being so very characteristic as regards to its situation, its quality, its duration and time of appearance, that by its presence, we in a great measure make an accurate diagnosis, although in many cases it also is very obscure. It is the first symptom we recognize in the course of events, although cases seem to have occurred without this very important concomitant (as regards diagnosis) ever making its appearance, previous to perforation. Dr. Drimont states that in a few cases, which occurred in his own practice, pain completely disappeared for an interval of several days prior to death, resulting from exhaustion. From which fact he draws this very sound conclusion, that we may regard it as just possible,
that this symptom might be absent a few days, which would sometimes include the whole course of the disease, in cases of rapid perforation. We also know, that such cases, as terminate in perforation, have their situation on the anterior wall, and are less painful than those situated on the posterior wall, which just might also serve to strengthen the above statement. The quality or character of the pain is in itself somewhat peculiar and diagnostic; rarely or never is it described by the sufferer as being of any other character than at first a feeling of weight, which gradually passes into a burning sensation, and finally into that of a very painful kind, described as a drawing pain, which produces a sickening depression, quite distinct from that of nausea. The period of its attack is characteristic; in the greater number of cases it follows a few minutes after the reception of food into the stomach, which continues during the whole period of gastric digestion; but as soon as this process has been perfectly completed,
the pain immediately subsides, and gradually altogether disappears. Then vomiting accompanies the pain, as soon as the stomach has emptied its contents, it entirely subsides in the majority of cases, although in many instances a burning sensation begins after the vomiting has ceased, which only continues a few minutes. I had the fortune, through the kindness of a medical friend, to attend on a case, in which this burning sensation was well marked, so far as we could discover from the sensations which the patient described. In some instances the pain follows almost immediately the act of swallowing, but in most cases there elapses an interval of a few minutes. In such cases it has been stated as an explanation, we think rightly, that the ulcer in those instances occupied the cardiac end of the stomach. In other cases again, it does not make its appearance till after the elapse of half an hour, or even more.
after taking food. In protracted, or in very large lesions, it changes its usual character, occurring only during the interval between meals, or even on an empty stomach. In such cases, relief follows on taking food. The pain is also characterized by its situation. It is felt immediately below the ensiform cartilage, corresponding to the median line of the belly, and in the centre of the epigastrium. It is in this situation that it first makes its appearance, and here also is marked with the greatest intensity, and often remains strictly confined to this particular spot. There are cases, in which the right or left of the median line, and even in either hypochondrium, is the seat of pain. We often find, in patients in whom the disease has gone on for months, that they are affected with a pain, also characteristic of gastric ulcer. This is also complained of as a gnawing pain,
affecting the spine between the eighth or ninth, and first or second dorsal vertebrae.
Like the epigastric pain, it has a fixed seat, rarely shifting from place to place, but always remaining near the same spot, where it was first felt, and varying a little in some instances, so much so, that it deviates laterally, not always occupying the vertical position between the vertebrae above mentioned. In this respect it resembles so far the epigastric. Its worst attacks generally alternate with those of the epigastric. There is a certain correspondence between the situation of pain and that of the ulcer. There are cases on record, which point out this relation between the situation of the ulcer and that of pain; for example, pain complained of in the umbilical region, has been known to associate with ulceration of the greater curvature of the stomach. With regard to the frequent lateral deviations of pain, we have good reasons according to Dr. Brinton for ascribing similar situations to the ulcers.
In fifteen cases mentioned by him, in which the pain occupied the left hypochondrium, the ulcer was found to exist in the cardiac extremity of the stomach; in five other cases, a like correspondence was observed between a right hypochondrial pain and pyloric ulceration of stomach. There is a physical means of diagnosis, by which, we may with considerable accuracy, elicit the probable situation of the ulcer—namely, that of pressure, which, when applied to the epigastrium, in some cases increases the pain, and in many instances, female patients are obliged to forego the perhaps fancied advantages of their stays, rather than endure the increased pain caused by the pressure of the central piece of whale bone in those supposed adjuvants to female form. Pressure applied to the unyielding spine does not increase the pain; but pressure applied to the epigastric tumour, not only does it increase epigastric pain, but also increases that of the
spine, and even in some cases it alone.
When making use of such a test, we
should proceed with great caution
and delicacy; otherwise, we are liable to
fall into error, and if done in a coarse
and rough way, may also produce
great injury. But pressure in every
case does not increase pain, for we
see the opposite is often the effect,
when applied with different degrees of
force, or in different situations.
I have read of two cases; one, in which
the epigastric pain was relieved, when
pressure was applied over the base of the
ensiform cartilage; but when applied
to a circular space about half an
inch below the apex of this cartilage,
both the epigastric and spinal pains
were increased: the other, when pressure,
of a moderate character over the cartilage
of the lower ribs, and flabby walls of the
abdomen, relieved the pain, which
on being applied with greater force,
the pain was increased.
Anomalies of such an nature appear to be not at all unfrequent, and justify the supposition that pressure may either relieve or increase the pain, according as it supports the periphery or impinges on the surface of the lesion. The debility, observed by patients afflicted with this disease, is very variable. The recumbent posture is, in a great number of cases preferred, during a severe paroxysm of pain, as being the attitude which affords most relief to their sufferings; although there are cases, in which the sitting posture is preferable during the paroxysm. However, some are obliged to occupy the prone, some the supine, some again prefer the right, some the left side. These positions are selected by the patient, either because the pain is somewhat mitigated by assuming this or that posture, or would be increased were any other assumed. Those attitudes adopted bear a close correspondence to the site of the ulcer; the supine being associated
with an ulcer on the anterior wall
of the stomach; the frenum with one on
the posterior wall of the organ.
Scarletis on the right, with an ulcer
in the cardiac end of the stomach, on
the left, with a lesion situated in
the pyloric end of the organ. As a
rule, all violent bodily exertion will likely
be followed by an attack. Moderate
exercise, in walking, if sustained for a
length of time, or as to produce fatigue,
will in all probability bring about the
same effect. There can be little doubt
but that the great relief afforded by the
recumbent posture is chiefly due to
the perfect rest which it affords.
Various kinds of food produce a marked
effect upon the pain. It has been already
mentioned, that the paroxysms of pain occurred
during the act of gastric digestion, when the
organ was most distended. If the ingesta
be composed of hard indigestible substances,
the pain is in general very much increased;
on the contrary, it is soothed by soft
jellyy ingesta. Some substances have an irritating tendency, independent of their consistency. All hot substances are usually productive of pain; tea and beer are in most cases unsufferable, but exceptions are not at all unfrequent. This pain is sometimes unconnected with the ingestion of food, even in some cases relieved by it. Lastly, those fluids most disliked, and unbearable in the greater number of patients affected with this malady, act on others as sedatives. In young females afflicted with gastric ulcer, the period of menstruation appears to produce a marked influence on the pain. There are cases which we cannot doubt, that the period of menstruation exhibited a marked influence, both in provoking and increasing the ordinary pain of the ulcer; but there are others in which the supposed ulcerous pain was quite distinct from the former's depthwisecal in its character.
This has been further established by the fact that pain of the same kind has occurred during every menstrual period, after all symptoms of the malady had disappeared.

Vomiting is the next symptom in the progress of events, in the history of ulceration. This symptom most means so clearly diagnostic of ulceration, as the preceding, which we have dwelt on particularly, but sufficient to direct our attention to it, in discussing the various symptoms of this disease. It comes on generally when the paroxysm of pain has reached its height, which is quite characteristic of this symptom when present, ushered in by a few efforts or retchings, it fully presents itself. From the distention of the organ which for the most part prevails at this period, it is rendered easy and painless. Having once fairly commenced, it rarely if ever subsides, until the stomach has been completely cleared of all alimentary matters, causing such disturbance. This act being over, it rarely fails to bring with
it complete relief; the pain being entirely removed, only a slight burning sensation being left, which completely disappears at the expiration of a few moments, if not sooner. Although this symptom is generally preceded by the characteristic some time prior to the attack, yet notwithstanding in some instances it comes on earlier, in rare cases as soon as the pain itself. Regarding the appearance and nature of the matter vomited, they differ in appearances according to the length of time they have been in the stomach. They are, in cases where it comes on soon after ingestion, in a slight manner altered. If a length of time has elapsed since food was last taken, they are altered greatly, having a well marked acid character, and in instances when the act has been delayed for a length of time after taking food, they are sometimes mixed with bile. In those rare instances where vomiting takes place, independent of taking food, as shortly after rising from
sleep, a glairy alkaline looking fluid is expelled. For the most part, (it is believed) the saliva swallowed during repose. This symptom is rarely if ever absent during the whole course of this malady, except perhaps in those cases of rapid perforating ulcers of young females. In many cases indeed it is so slight, that it was merely a regurgitation never reaching to such a height, that it could be designated vomiting. There is a case mentioned, in which an ulcer remained in an active state for the space of four years, without in the least occasioning vomiting. In some cases it has been limited to a slight attack at the close of the malady. Among the circumstances which give rise to vomiting — overloading that organ rarely fails to bring it on. Also the size of the ulcer seems to have a close connection with its frequency and intensity. A reduction of food to the smallest possible sustaining quantity, and that of the least irritating kind, generally alleviates, or altogether removes this distressing symptom.
We here state, as our opinion, that vomiting, when once it has occurred in the course of this disease, always tends to increase both the danger to the patient, and protracted tendency of the disease; by causing a greater or less state of insensibility, according to the quickness of its access, and the completeness with which it empties that organ of the food previously taken; besides, the fatigue implied by such violent and abnormal action, of both nervous and muscular systems. This state of the body favours the progress of the ulcer, as also its tendency to perforate. The symptoms, above mentioned, may be present in a case of severe dyspepsia; and therefore, their presence is not sufficient in themselves, to enable us to arrive at the conclusion, that ulceration is present; but those accompanied at some later period, hemorrhage, may afford warrant enough for us to arrive at such a diagnosis of the case. Ulceration of this organ in common with ulceration
of every other tissue, necessarily, implies a solution of continuity, and as the coats of the stomach are all abundantly supplied with bloodvessels, it follows that their coats are also involved in the same mischief. To prevent hemorrhage, it would require an instantaneous and effectual plugging of their ruptured coats, which is scarcely possible. Hemorrhage occurs most abundantly after a full meal, and thus favoured by the flow of blood which the act of gastric digestion excites; as well as, the mechanical disturbance, which distention of that organ would necessarily inflict upon the diseased vessels, which occupy the site of ulceration. To what extent slight hemorrhage occurs in the early stages of ulceration, cannot be accurately ascertained, for it is possible for such a hemorrhage to occur without the least notable sign preventing itself. The presence of a small quantity of blood in the stomach does not excite vomiting, and therefore we are deprived of one of the means of ascertaining its presence; and unless the patient pays particular attention to the
colour of the stools, there may accompany them a slight hemorrhage, without its being detected. It is also sometimes very difficult to recognise it from the changes it has undergone, by the action of the fluids of the stomach, and intestine, and its adaption with the ingesta and secretions, which may happen to be present during its transit. A mere use of the sense of sight, in many instances, will fail to detect the presence of a slight hemorrhage, nay, it may even lead us to the erroneous conclusion, that hemorrhage is present, from the external appearance of the matters ejected. In such cases, the only sure means of detecting the absence or presence of this important symptom, is a strict and frequent microscopic examination, both of matters vomited, and the feces; collecting such portions as are free from food, especially that of animal food, which may contain blood corpuscles. From statistics, it would appear, that those profuse hemorrhages, which are due to the rupture of some of the large bloodvessels,
external to the coats of the stomach, occur in no more than one third of the gastric ulcers, which come under our notice in general practice. The symptoms which mark their presence confine the former statement;—namely, that it is according to the quantity of blood spewed out from such lesions, to which its specific action as an emetic or purgative, is entirely due. In such cases, immediately after the patient has partaken of a comestible hearty meal, there is felt an unusual sense of fullness, and weight, over the region of the stomach, accompanied by a feeling of syncope. Nausea follows, and the result is the vomiting of a large quantity of blood, either coagulated, or if rapidly effused and ejected, having all the characteristics of arterial blood. In some cases, although the blood is effused in large quantities, yet it does not hang on vomiting; but, passing through the pyloric orifice, into the intestines, is afterwards expelled along with the feces.
The cases are very rare, in which the hemorrhage is so sudden and copious, that the stomach and intestines are completely filled at one gush, and the patient expires without being able to make use of the slightest expulsive effort to diminish the enormous clot, which the necropsy clearly assigns as the immediate cause of death.

We generally find the bowels in a state of constipation, in persons labouring under this malady. Two causes are assigned to account for its frequency:—by the irritation of the gastric ulcer caused by the food taken into the stomach. Vomiting is set up, which ends in the complete removal of the ingesta formerly received into that organ, and so deprives the intestines of that amount of chyme, required to stimulate them to the normal frequency of the act of defecation and all arrest of peristalsis, brought about by
Peritonitis, by vomiting, and probably also by painful affections of the stomach. It is always well marked, in cases where all three causes occur at one and the same time.
Diarrhoea seldom occurs, but as already mentioned, copious hemorrhage from the ulcer gives rise, in some instances, to looseness of the bowels. Ulcerations affecting portions of the small intestines, accompanied by hemorrhage, are generally associated with copious diarrhoea. If such a symptom does occur, we should make a strict examination of all the symptoms present, and have our attention drawn to other portions of the intestinal canal; and not entirely devoted to the stomach, in order that we may not arrive at a wrong diagnosis.
Flatulence sometimes presents itself in cases of ulceration, though fortunately not so frequent as might be expected.
It is a most distressing symptom when it does occur. I once saw a case, in which this symptom frequently made its appearance, to the no small discomfort of the patient, increasing the pain to a fearful extent. In this case it lasted sometimes for days after the removal of which the patient got immediate relief. It appears to depend on the decomposition of food taken into the alimentary canal, left from the want of proper secretions, to form into gases. As a cause of its incongruency, it would appear that any food taken in excess, to the quantity or quality of what the secretions are capable of digesting, is in most cases expelled again from the stomach by vomiting.

Tachyphobia, which generally accompanies, or is associated with gastric ulceration, is essentially not so much a symptom as a collecting together of symptoms; and shows the injury thus inflicted upon the organism, by a
variety of suffering, such as the effect of frequent and severe paroxysms of pain. The fatigue and exhaustion brought about by frequent vomiting, copious hemorrhage, loss of the digestive powers, caused by the destruction of a large patch of mucous membrane, together with the age of the patient, are causes, every one of which has a share in the production of the cachexia. It is most marked in ulcers of long standing and persons of middle or old age, what the causes of its production would lead us to expect. Persons afflicted with this malady, scarcely ever wear an appearance of perfectly sound health, and the look of a patient labouring under gastric ulcer, is quite different from that presented by either anaemia, emaciation, or exhaustion.

Amenorrhoea is an effect very often observed to occur in women afflicted with gastric ulceration;
and requires some little consideration. There is not the slightest doubt to be entertained about the presence of this symptom, in cases of long standing, and where there has been a copious hemorrage, and it occurring frequently (at least in a great many instances) amenorrhoea marks its progress; but there are cases, in which an ulcer has lasted throughout the whole epoch of menstrual life, without amenorrhoea ever manifesting itself as also quite certain. But in cases in which the hemorrhage has occurred frequently, and especially, there is little doubt - but that it will be followed by amenorrhoea, and that there is a remarkable coincidence between those two symptoms, appears obvious. When we consider that all copious hemorrhages, as well as, in the drain of nutritional fluids, which take place during pregnancy, and lactation, are in almost every case followed by amenorrhoea. In cases where the amenorrhoea precedes the hemorrhage, we have no
facts to prove, that in those cases, the stoppage of the menstrual flow was the immediate cause of the hemorrhage; as in those cases, hemorrhage does not occur more frequently than in ulcers of the stomach generally, nor is there any marked connection between the date of the hemorrhage, and that of the menstrual period.

Treatment

The few remaining pages of this essay, devoted to a description of the treatment of this interesting disease, are quite insufficient to treat of it fully, or even in the least degree with proportion to its immense importance. We should endeavour as far as in us lies to remove the cause, support the constitution, remove all obstacles which may retard evacuation, to alleviate or of possible arrest the more conspicuous symptoms, and in proportion to the care and accuracy with which we fulfil the above indications, so in proportion, will be sure success.
in treating this disease. In order to practice this right, we should first select and place our patient under a suitable diet, and afterwards, we may direct our attention to the various symptoms as they appear, and allay them, in a proper use of proper drugs. The great importance of a well-regulated diet is thoroughly pointed out, in that wonderful case of Dr. Hunter, (Given fully in Waterton's Principles & Practice of Physic), but there are many in which a similar treatment was made use of with success. Drugs are no doubt valuable adjuncts, but bad substitutes. The diet, which experience in this disease has proved, can be given with impunity and to advantage. It is such, as the now well ascertained principles in the physiology of digestion, would lead us to expect. All the symptoms of gastric ulcers are aggravated by full meals, during the digestion of hard, tough, and indigestible substances; also by hot food or drink, and irritating substances;
while on the contrary, the use of bland articles of food, of a soft pulpy consistency, at a cold temperature, and in small quantities, not only relieves the symptoms, but if persevered in, will cure the patient. The foregoing statements entirely concur with our expectation, based on a knowledge of the physiology of digestion, and pathology of the ulcer. The diet best suited for such cases, where irritant qualities are to be avoided, is milk, given in small quantities, and at frequent intervals. This is most suitable, as it is the natural food of the young animal, it also contains all the substances necessary for the organism in suitable proportions to each other, but in a state that favours digestion, and devoid of all mechanical irritation on the stomach. This in cases of peculiar irritability, may be boiled or diluted with lime water. In cases where less irritability is manifested, a more substantial diet is preferable; this is to be gained, by the addition of some of the finer varieties of
starch, as arrow-root, also tapioca and
rags may be mentioned, which are to be
soaked into a pulp, and taken only when
cold; in small quantities and at frequent
intervals. As convalescence proceeds, we
increase the quantity and quality according
to the stomach is able to bear it, from
the lighter to the more substantial far-
aceous substances. In cases of extreme irrita-
tion and prostration, nourishing enemas
may be ordered. This plan must be
modified, with regard to the patients taste
and circumstances. The various symptoms
must be allayed by drugs. When the pain
is severe, great relief is obtained from
the judical use of hot fomentations,
sinapisms, turpentine stipes over the region
of the epigastrium. Opium is a very
important drug in this disease, administered
either alone in the solid form, or in combinat-
on with other drugs, as Indian Hemp
Hyoscyanus &c. Bismuth, either alone, or with
compound kino powder added, is a capital
sedative, allaying pain and nausea &c.
D. Brinton
puts great faith in the administration of Potassium, and Calomel, in cases where there is much flatulence. I prescribed this in one case with marked success. In obstinate vomiting, accompanied with hemorrage, swallowing small pieces of ice, or applying ice to the epigastrium, is often attended with the very best results, relieving the pain and checking the hemorrage.

Where there is persistent chronic vomiting present, great benefit is derived from the administration of Hydrocyanic Acid. Small doses of Nitrate of Silver, either in solution or in pills, have been highly recommended by some. When the patient is in a state of great debility, anaemia, and there is little pain or nausea present, mild preparations of Iron or Quinine, in combination with Iron, when administered will be followed by marked benefit.

Antiphlogistic treatment, by abstraction of blood, must be strenuously avoided; also Mercury must be withheld.
Suppose there be marked constipation present, and the use of aperients needed, castor oil, aloetic or colocynth pill be, when administered, will suffice, and prove very efficient.

Lastly, we should avoid, as far as in us lies, all kinds of pressure made on the epigastrum. Violent exertion is also not to be avoided. The patient should give himself or herself as much rest as possible, and in severe cases of hemorrhage and vomiting, strict rest in the recumbent position should be enforced.