Thesis for the degree of Doctor of Medicine 1888

By George Wrichtsmeir, M.D.

Anorexia.

A Clinical Study.
The following pages are presented as the result of some years observing of the condition of the appetite in various states of ill-health, and of the effects of treatment in which diet is regarded as equally important with medicaments proper. They go to prove that anorexia depends
1° on physical conditions associated with various diseases
2° on purely mental associations
3° on some diseases of the nervous system
4° on the general condition of the body as regards failure of the vital powers, and of course on combinations of these, especially 1° + 2°.

We arrive at valuable aids to prognosis, and at important guides to treatment.

The illustrative cases have occurred in my own practice, unless where otherwise indicated. Books consulted:
- Foster’s Physiology
- Hilton’s Rest and Pain
- Austin on Stimulants & Narcotics
- Miss Nightingale’s Notes on Nursing
- Reynolds’ System Articles by Wilson & Fett
- Bristow's.
The new-born child cries a little, breathes, moves, and sleeps. Its little movements, the motions of internal organs (heart etc.), the need of growth, give a feeling of deficiency. The child awakes, calls out, and in an accentuated imperatival mood, expresses its one want. He stretches out his arms (ἀπέστη), he finds and is satisfied with, his mother's breast. This is the first instinct is the strongest ever, and the most essential to our existence.

And as the king of Israel was passing by upon the wall, there cried a woman unto him, saying, Help, my lord, 0 king.

And she answered, This woman said unto me, Give thy son, that we may eat him to-day, and we will eat my son to-morrow. So we boiled my son, and did eat him, and I said unto her on the next day, Give thy son, that we may eat him; and she hath
hid her son." II Kings vii: 26

There is no more universal nor more powerful of the lofter emotions of the human breast than the love of the parent for the child. Yet even the sense of horror which we regard such an occurrence, convinced us of the power of hunger.

This selfish physical impulse is to be discriminated from the instinct of self-preservation, - retention of life. In this instance we doubt both were combined, as probably they always are, but the former was clearly predominant, there being their last small hope of deliverance. So there was multitudinous evidence to show that mothers - doubtless either of those women in other circumstances, - hesitate not to sacrifice health, comfort, life itself for the child. But the keen pressure of hunger overwhelmed.

That the two feelings are distinct sometimes in reality as well as in thought, we draw from the case of a pathological patient, whose course may be nearly proven, but—
who is full of hopes, and desire of life, with digestive organs seemingly in fairly good order; nevertheless declining to take even the amount of food required to replace waste, much less that required to renovate destroyed tissue. Here the instinct of self-preservation is perfect, that of hunger deficient.

It is therefore evident that (apart from any reasoning as to the moral obligation to preserve life) the desire for food is as essential a part of our animal economy as are the tangible parts thereof, the bones & muscles and the digestive organs themselves. It follows that the loss or want of this appetite, — the opposite condition of anorexia, — must denote some serious derangement. Now as the health or well-being of a limb is expressed by free movement, so the absence or deficiency of motion points to fracture or disease of bone, or to disease of muscles or of their nervous supply. And in like manner Anorexia is the expression of some
disorder either of the particular organs set apart for the reception of aliment, or for its assimilation, or of the nervous supply to those organs; or more widely still, anorexia expresses a condition of the whole system which is the opposite of health. And indeed it is plain that in any general disease e.g. Scarlet-Fever, there is loss of appetite.

Perhaps the simplest form in which Anorexia is observed as a morbid state is in such a case as the following:

Case I

A.C., a boy aged 6, small for his age, was brought to me by his sister. He has a slight cough which came on some days ago, but the want of appetite has lasted some weeks. The tongue is moist, is a little coated and the tip and edges slightly redder than natural. No other abnormal symptoms, except that (in consequence of the Anorexia) he is thin and languid.
Case II

No. 4.—Aged 4—was a similar case. He had had an attack of chicken pox from which he had perfectly recovered three weeks before. He was thin, languid, but there was no cough. After a small aperient dose of grey powder or calomel the treatment seems to be for such cases 11 Nux Vomicae in 2 drop doses ten die in combination with an alkali, continued for 10 or 14 days.

If we consider an ordinary case of gastric catarrh, or so-called biliousness, there is not only want of appetite but nausea and often sickness. No doubt this is so far a nervous phenomenon, due to certain poisonous ingredients (stomaines) circulating in the blood. As is shown, and popularly known, by the relief given by a purgative. Provided the stomach is kept free of additional irritation, i.e., is allowed rest, such treatment
frequently suffices. In such cases one would suppose the
loathing for food to be nature's indication for cure. In many
other ailments it is not so.
Anorexia, is then not the
sole guide to treatment. In treating
the subject we must first-
investigate those ailments
(of the digestive organs) where
(as in gastric catarrh) anorexia
is an essential as opposed to
accidental component of the
disease. [We should not include
Acute Bronchitis e. g. in such
a class, as the want-
appetite is plainly due to the
unfailing accompaniment
of acute gastritis nor indeed
any illness except, as above
mentioned, of the digestive
system.]

A. The first condition is
Inflammation of the Stomach.
In catarrhal Inflammation
the mucous lining is swollen
and congested. Little of the
normal secretion is formed, or
if formed, not poured out, the gland orifices being occluded. There is some tenderness, generally. That this tenderness is not the cause of the anorexia, is shown by the case of Gastric Ulcer, where the appetite is frequently good, but the patient dreads to eat on account of the pain. At the commencement of catarrhal Gastritis, there is not unusually an increased appetite, due to the slight irritation of the sensory nerves of the stomach, an indication misinterpreted by the organism. Hence so commonly a "bilious attack," following on a hearty meal. But when the catarrhal inflammation is fully established, the introduction of food, nearly impossible of digestion and solution, and prone to fermentation, adds to the existing distress, and nausea supervenes. The desire for water is not much
affected. In erythematous inflammation, such as occurs in Scarlet Fever etc. — while the anorexia is as pronounced, there is a great demand for clear fluid as water, either plain, or acidulated, or demulcent, as barley water.

The nerves of the Stomach in both cases convey to the central system the impression that food is not wanted, in this case correctly that food is not required. The same general statement, to put it figuratively, is made after a full meal in the healthy or well, but then accompanied by a feeling of comfort, whereas in the former cases there is a feeling of uneasiness increasing generally to a loathing of food, or nausea. The same thing occurs in general fatigue, bodily or mental. A person comes in to dinner too tired to eat.
The nervous system connected with the stomach shares in the general exhaustion. Hence the benefit of a glass of whisky before dinner after a long walk in the Highlands. A general stimulant to the whole system. This treatment is less applicable to fatigue resulting from mental causes, such as business overwork or grief, because this is usually accompanied by want of physical exercise so that the momentary beneficial action is overshadowed by the detrimental subsequent action on the liver etc. But here the taking of some food will (unless the fatigue be excessive) restore the appetite. The food acts as a local stimulant. Herein is one of the reasons for commencing with soup at a late dinner. The anorexia due to such transient cause is thus easily relieved, but when the nervous system is more seriously enfeebled these results
atony of the stomach and permanent want of appetite ending not seldom in death.

Case III

Miss C. L B. a single lady of independent means, had long suffered from mitral disease. She had been delicate in her early years, but had enjoyed good health for some years. She had a serious attack of bronchitis in January 1885.

In convalescing she began to refuse food but by careful steady administration of liquid food she recovered her appetite in a short time. On February 15th 1887 she consulted me for some indefinite sensations, some slight cough, tongue slightly coated and feeling of malaise. On Monday the 21st following, on calling I was informed that feeling very much better she had gone up to London on some business.

She returned, still feeling much better but the result was, after a few days symptoms
indicating apoplectic effusion. There were gradually increasing weakness and paralysis of right leg, slightly of right arm, tongue very slightly protruded to left side. She took her food tolerably, about as usual in the first week of such cases where the appetite providentially is very moderate. She recovered her mental faculties, but was always unable to comprehend what had happened to her during the first few days of the seizure, although she had not (apparently) been unconscious. But by the end of the week when in ordinary cases (apoplexy) the appetite begins to improve it became increasingly difficult to prevail upon her to take even the small amount that would be sufficient to keep the patient alive, and the feeding and likewise drinking came nearly to a standstill. Tongue was always moist and tolerably
natural in appearance throughout the whole illness, except for some light-brownish fur at the back. Hyamine Suppositories were administered and a careful nurse by regular administration brought the patient into a better condition. She was gaining strength, enjoying her food, and in full-altogether improving. It was hoped this would continue, but some severe cold weather occurred in the end of March and after that time she gradually lost ground. Now and then the appetite would improve for a few days, but the system gradually grew weaker. She died on 18th April.

Sometimes there was a complaint of nausea, and (with some uncertainty) the enlarged head of the Pancreas could be felt. No enlargement of the liver, general nor partial, was present. The main factor of the case was the atony of the stomach and the consequent loss of appetite. There were
other elements. The patient was very wilful and difficult to manage. Still her mental faculties were little injured.

No doubt the longstanding mitral disease, perhaps congenital, induced congestion of the liver, which likewise causes anorexia. But this was no worse in March than it was the year preceding.

If we were to rank anorexia as a disease of itself and not merely a symptom, we might regard this as a typical instance. It follows after (1) an attack of bronchitis seriously impairing the vital powers; (2) subsequently after an injury to the brain likewise impairing the vital powers. It is connected with a slight but chronic gastric catarrh.

Improvement appeared only after the use of such remedies as nourished those vital powers, i.e. after regular administration of assimilable liquid food or meat suppositories.
Little effect was observed from the use of tonics, acids, or alkalis, which are supposed to influence the gastric digestion to give nerve tone. To this case we shall return, but to continue our remarks on the relation of states of the stomach to anorexia:

In atrophy of the organ (occurring sometimes in anaemia) along with some other diseases of other organs, there is failure of appetite, with consequent loss of flesh etc. The cure for this consists in change of air, travel, freedom from cares, i.e. remedial agencies directed towards the renovation of the whole bodily frame.

In cancer, loss of appetite is generally prominent. In ulcers, many of whose symptoms are similar, the appetite may be good and the dread of bringing on pain be the cause of the refusal. Hood's ulcer depends on chronic...
Gastric catarrh, the latter itself causes, in these cases, anorexia, though only occasionally.

Case IV. The following case occurred in the practice of a friend.

A young lady, apparently excellent health died suddenly after partaking of a hearty dinner. At the F. W. a piece of carrot was found sticking in a hole in the stomach. The ulcer had existed, unsuspected, and complete perforation had suddenly taken place. Ulcer therefore per se is not a cause of anorexia. But we can see why Cancer should be so, even if the growth be limited to no large portion of the gastric wall, if we consider that cancer is a growth of retrograde metamorphosis and implies a depreciation of the vital energies. It usually I believe happens that a long period of feebleness and anorexia precedes the first evident symptoms of cancerous disease. Which
is the cause of the other can hardly I suppose be known.

Case VII. M.V., aged 60, who from time to time was subject to "bilious attacks," consulted me for a worse attack than usual. There were present nausea, constipation, and indications of chronic gastric and intestinal catarrh. The worst part of her illness in her own opinion was pain over the junction between the transverse and descending colon. Besides pain, which nothing seemed to relieve, felt as pain there was a remarkable feeling of coldness. Under treatment she began to improve but a relapse soon occurred and with varying amendments, she was gradually getting worse. Dr. Wilkes saw her in consultation and could discover no organic cause for her complaints. The liver was not enlarged. Small doses of Morphia and Arsenie were prescribed to relieve
pain and improve nutrition generally, and the feeding was attended to. But in this case as in the case of Miss C. it was very difficult to overcome the indifference to food. After five weeks (examination of the abdomen by palpation was made every 3 or 4 days) a swelling over the edge of the liver appeared noticeable, and that organ slightly enlarged. In a few days another nodule, higher up and a little to the right was perceptible. Dr. Wells saw the patient a second time and confirmed the diagnosis of cancer of the liver. Probably the stomach became involved, as coffee ground vomiting supervened. The case terminated fatally in about six weeks there after, although the latter part of the illness was very lingering. May it not be owing to cancer being a growth of low grade that the latter part of the illness where cancer is the cause of death is so
prolonged? (It has been so in every case which has come under my notice.) In Chronic Dilatation of the stomach it is stated that the appetite is good, often voracious, unless when due to obstruction of the pylorus by cancer, when the appetite is bad.

In Fibroid Thickening, when there is generally some localized peritonitis and where the submucous coat chiefly is found to be thickened, and there is tenderness, vomiting generally, the appetite is always bad, and decreases as the disease progresses.

B. If we regard diseases of other organs concerned with the digestive apparatus, we find diseases of the Liver so frequently accompanying similar diseases of the Stomach that it is not perfectly possible to discriminate to which the anorexia, if present, is due. Thus among the commonest
As in case 3, where symptoms of hepatic congestion occurred, nothing improved her condition so much as la Digitalis under which the heart's action improved. p. 13.
Symptoms of congestion of the liver are the coated tongue, nausea, etc. of gastric cataract. Further, any disease of the liver which interferes with the free circulation through that organ induces as a result a chronic gastritis accompanied by dyspepsia and indifferent appetite. We now and then see cases, however, where there are sickness, anorexia, flushing, headache and giddiness, without much tenderness over the liver. Symptoms presumably due to some congestion of the liver, along with a fairly clean tongue and presumably a fairly healthy condition of the stomach. Such cases, with the whole group of liver complaints (e.g. case of Mrs. V.) seem to warrant the conclusion that every severe functional or organic hepatic disease causes anorexia.

The intestines are likewise not unfrequently correspondingly affected with the stomach.
may happen after a gastric cataract has been relieved, there still remaining an intestinal cataract, the appetite is affected, there being (as also when intestinal worms are present) a craving for food at irregular times. Intestinal neuralgia from no very obvious cause produces a diminished appetite. Constipation is perhaps generally accompanied with impaired appetite. This is probably in great part toxic, due to reabsorption of effete matter, affecting the nervous system, shown by the headache present.

Organism Chronic disease of the heart affects appetite only indirectly; either by the obstruction to the circulation through the liver, so causing chronic congestion of the stomach and chronic gastritis; or through the interference with the action of a labouring heart, from a stomach at all distended by a meal.
With regard to the lung, it is always possible to feed a patient in acute pneumonia, less so when affected with acute or subacute Bronchitis. In Phthisis suitable feeding becomes most difficult.

Anorexia, like Amenorrhea, is an early symptom. Yet when, with other suitable accompaniments in treatment, proper and sufficient food is perseveringly supplied, cases begin gradually to recover. Improvement in appetite corresponds here passu with improvement in all the other symptoms. When, as so often happens, after a few years comparative health, a relapse takes place, and a steady downward course sets in, almost its first sign is anorexia.

In our discussion, we have as yet considered only those diseases of organs which make manifest the emotion
or feeling of Anorexia simply in its blind, gross, purely animal aspect. When we consider the effects of disorders of the oral and nasal passages, through and past which aliment passes, we come into a higher region and approach the perceptive faculties, the Understanding.

A congested condition of the oral, nasal and pharyngeal surfaces, causes loss of appetite to some extent only. It is seldom localised, being part usually of a general malaise which as we have seen is a cause of (and is cured by) Anorexia. But in a chronic case sometimes smell is quite destroyed. If the sense of taste is lost it is mostly for banquet or flavour. While the appetite is not completely lost, the needs of the otherwise healthy system calling for nourishment still it is impaired. The odour of savoury dishes and the taste of delicate food excite hunger and stimulate the gastric
secretion as well as the Salivary. An offensive odour, if one be out of sorts, or fatigued, is sufficient to destroy appetite entirely for the time.

If the mouth is parched and dry, or the tongue covered with dry thick fur, the sense of taste is gone and food of any kind is refused. So it may happen in exhaustive fevers, as typhoid. If however, the tongue be cleaned by painting with Glycerine and water, or with Lemon Juice, the relish for food returns and the patient submits to be fed. There seems moreover to be some emotional relationship between the sense of taste and the Stomach and digestive powers generally. For articles of food which are cooked in an insipid, “unappetising,” way, seem to be slower of digestion than when the contrary is the case. The presence of fever does not when the tongue is clean, produce anorexia.
In the case of a boy aged 11 in whom a spinal abscess was opened first over the left iliac crest and subsequently in the right, the temperature which at first fell afterwards remained for some weeks at 100 and 101 with morning remissions. The tongue remained clean and healthy-looking, the appetite and digestion appeared satisfactory and the patient continued to improve. He is now in good health.

In the case of a woman aged 37, where was present an enlarged tender uterus, and where was present peritonitis with a large amount of effusion, with evening temperature of 103° and 104°. The abdomen was tapped and two pints of fluid escaped. The evening temperature became 101°, 100°, and 98°. The tongue cleaned and she became very hungry, kept asking for meat—was sick of fish and slops. A moderate amount—
animal food, minced, was allowed and she continued to improve.

The condition of the tongue is of double importance as it shews further what is probably the condition of the stomach. If the tongue be dry and baked, coated with a thick layer of epithelium etc., and the stomach be (as we have reason to suppose is generally the case) in the same dry-uncomportable state, what is the use of introducing therein such articles of food as require a large amount of gastric fluid to dissolve them? If we dissolve this coating as we may do by solutions of the alkalies, the while avoiding as much as possible to overstask the organ, we make it possible for the enfeebled stomach to pour forth its small amount of natural fluid and we gradually restore its natural
The action of alkalies in gastric catarrh is diverse. It is essential that they be well diluted, otherwise they would act as caustics or irritants, further depressing the vitality of a feeble organ.

1. Part of the action is due to the amount of fluid, softening and washing off the thickened epithelial covering which prevents contact between the stomach, the tongue, and the food.

2. Just as we use alkaline soap to get rid of superfluous cuticular epidermoids, there is, I apprehend, a similar solvent action of dilute alkalies on the throat.

3. Dilute alkalies promote the secretion of normal gastric juice. The stimulus acts not only at the point of contact but over adjacent areas, and the secretion from underweight also washes away the mucus and epithelium, admitting of the natural stimuluses of the food.

4. Dilute alkaline solutions have a sedative action on surfaces whose normal secretion is alkaline acid. [E.g., Alkaline]
lotions allay itching in lichen. Some forms of sögerma &c. The sedative action of bismuth, is probably mainly local, renders it of great value in some forms of irritable hyppepsia, but soda bicarb has a sedative action likewise. Sometimes sleeplessness depends on the abnormal secretion of acid, not sufficient to cause much discomfort, but the irritation of the peripheral nerves prevents due repose of the central centres. This is relieved by a few drops of big-trisac well diluted, and sleep returns. Mothers believe that all want puts their babies to sleep. Perhaps it is so by virtue of the anaesthetic action of camphor or turpentine oil.

From the above considerations we derive indications for the administration of alkalis. To give shortly before meals; — to give them diluted; — to give food soon after; — not to prolong their use; but as soon as the tongue cleans to give acids after meals.
condition. So with the administration of remedies, as well as of food.

I was asked to see a man, in consultation, who was suffering from erysipelas and was not progressing favourably. Treating the disease and not the patient, the doctor in charge had administered Te Ferris perchlorv in large doses and the tongue was balsed as hard and hot and dry as a bit of sole leather in a fire. I advised free administration of alkalis, Soda Bicarls, and especially Am. Carb., with plenty diluents, stopping all bow.

Again, I was asked to meet a gentleman somewhat my senior who had made a similar mistake. The case was a young lady suffering from Rheumatic Fever, for which she was being treated with Fe perchlorv. The bowels were locked up, had not been moved for a week.
Throat and mouth parched and dry. Urine deep coloured, depositing copious sediments. She was immediately put upon alkalies in effervescing mixture with saline purges until the bowels were relieved, and soon improved.

Case X

In the practice of a friend of mine, a similar, but more aggravated case occurred. He was sent for and found the patient, a gentleman, had been treated for Acute Rheumatism with In Fe perchlorid. The bowels had been kept confined to such an extent that large perineal abscesses had formed and the whole posterior of the man seemed very free. Free incisions were made, they took on kindly action and a much better recovery was made than could have been expected. Nevertheless the patient's life had been in danger. So with no other drugs. The condition of
the recipient organ as well as the particular ailment must be thought of.

All the same, Tincture of Iron is a remedy not to be despised in Acute Rheumatism and in Pneumonia. But in the cases mentioned the appetite and digestive powers were being ruined and the patient's consequence going backwards instead of improving.

Since the above was written, Dr. Dickinson has published (Brit. Med. Journal, March and April 1888) a record of investigations into the state of the tongue in various illnesses. He finds, e.g., that every variety of tongue is met with in Pneumonia; and that the tongue denotes states of disease not individual diseases. The coated tongue red at tip and edges is found commonly in Chronic diseases (Album in urinac.)
and also in some febrile conditions. When the tongue is further coated, "pyrexia and prostration are both on the ascent," the saliva more noticeably deficient.

The Strawberry tongue (of Scarlet-fever and sometimes typhoid) is next in severity and the Plastered tongue, an indication of recent acute febrile disease. He finds as a general rule that the saliva lessens as the coat thickens. Pyrexia, which corresponds according to Dr. Dickinson, with thickened coat, and the latter with lessened saliva, no doubt—causes diminution of other secretions, as the gastric. Hence Anorexia in fevers. He remarks on an exceptional instance of healthy tongue with pyrexia. This occurred in a case of Pneumonia an illness as I have pointed out where Anorexia is not prominent.

In speaking of the dry furred tongue, Dr. Dickinson says:— "Among the causes of want—"
Saliva the most important is a state of system which cannot be otherwise defined than as failure of nutrition and vital power.

The loss of appetite when this is present, is due not only to the coating preventing the stimulus of rapid food but also to the deficiency of vital power. An indication therefore for feeding.

He goes on to say that increased moistures of the tongue is a sign of the best omen.

Increased flow of salivary secretion presumes similar increase of gastric secretion, improved appetite and digestion following. Throughout the lectures there is no reference to appetite— I should think—a remarkable omission; but it is easy to see in a general way the correspondence and bearing of D. Dickinson's observations with my previous remarks.

Taste and smell continually
go together in our perception of food, whether it be desirable or the contrary. As we have said, physical conditions—(coated tongue, nasal catarrh)—remove their influence; but as mental sensations their influence is manifest. It should be noted that a coated tongue does not necessarily imply anorexia.

A young woman, 25, suffering from acute gastric catarrh, with febrile temperature (for which no other cause could be discovered) had a thinly-coated tongue, with prominent papillae. She had no appetite and had eaten scarcely anything for some days. That morning she had taken an egg, some toast and tea, which had come back.

Whatever she partook of gave great pain. She was put on milk and lime water, with an alkaline mixture.

Next day tongue was moist and the edge less irritable,
but very thickly coated. She had taken a pint of milk in the 24 hours, and was desirous of more. Appetite improved. She was kept on a low diet, mainly milk, and got quite well.

There are some odours and tastes which are provocative of appetite, and others marked by the reverse. Moreover, these are not quite the same for all, but (corresponding to the various minds, which differ more widely than the furthest range of bodily diversity,) there are remarkable idiosyncrasies. These two senses give hardly any information as to the position of an event in space, but as to time they are the most expressive of all the senses.

A distinguished Physician in conversation once remarked upon his disagreeable associations with the smell of Chloride of Lime. It carried his memory back to the time when his mother died, and that...
Suppose had occurred some sixty years before. So the dislike to particular articles of diet may be a mixed product of distasteful associations purely (though perhaps unconsciously mental). Indeed but refer to Miss Nightingale's Notes on Nursing for remarks on the serving of a patient's diet. She likewise calls to aid the sense of sight as an appetizer.

Division II
Diseases of the Nervous System

First: Of Spinal diseases. Anorexia is not a symptom. It is not present unless the disease be some febrile affection where gastric congestion or cataract is likewise present.

Of Brain diseases. In apoplexy, at first it is present and gives us an indication to diminish the supply of food and so to reduce the circulation, for
the first 8 or 10 days. If it persist after this time it is rather an unfavourable sign, and has to be counteracted by careful and steady feeding.

In a case which came on slowly, i.e. in about 30 hours, and resulted in aphasia, with hemiplegia of the left side, the appetite was feeble at first and began to improve slightly. But a sudden attack of anorexia came on and for about two days the patient could scarcely be induced to take anything whatever. By dint of persevering and coaxing he was induced to take food again. Injections of beef-tea per rectum were threatened but if given at all not more than once or twice.

The patient recovered largely. Speech returned. His memory for figures which had been excellent was lost. Motion came back to his legs, and later, arms and fingers, though these did not recover sensation.
He lived for about 4 years thereafter, and died of a fresh onset.

In this patient, from the aphasia and the left-sided paralysis we should conclude that the posterior extremity of the third right-frontal convolution was involved. (If we deny to the right-side the functions of Broca's Convolution, we must assume the existence of a simultaneous lesion on the left-side without paralysis.)

But was the centre for appetite involved? Apparently not: for although the appetite entirely failed for some days, yet subsequently there was little difficulty afterwards with his feeding, while motion but slowly returned to his hand and complete sensibility never.

This suggests the wider question: Is there a centre for appetite? This is not, so far as I am aware, shown by observation of the different sites of
apoplectic effusion. Dr. Bastian in his work on Paralysies, makes no mention thereof. In those cases where the Medulla is hopelessly involved, death ensues primarily from failure of respiration if not from shock.

Again, the evidence of tumours must not be overlooked. In February 1886 a large number of tumours were exhibited at the Pathological Society. These involved or pressed upon all parts of the brain. Some (tubercular) being multiple yet – though our point is not stated, it is evident that existence could not have been carried on long enough for a tumour to grow had the centre for appetite been involved (Path. Trans., vol XXXVII). It corresponds with this that while Prof. Ferrier in his first edition on Cerebral localisation localises the hunger centre in the occipital lobe, yet in his last edition he omits these as not having
been established.

One would imagine that in such a disease as Glosso-labio-laryngeal paralysis where the greatest difficulty of swallowing is an early and increasing symptom, that ultimately the centre for appetite did such exist would become implicated. But it is not so. While there is no febrile disturbance, no loss of sensation, pain, giddiness, or any form of mental defect; yet the appetite continues good the system at large for the most part retains its powers, excepting so far as they may become impaired by the starvation which the difficulty of swallowing gradually induces. "Bristowe Practice of Medicine 3rd Ed. 1976."

Chorea has been said in most instances to be a disease of underfeeding and therefore in its aggravated forms at
least) in the main, a disease of the poor. Certain it is that a main object in treatment is overfeeding. Whatever be the proximate cause we find that "the patient's appetite is often bad or capricious or fails" - Kristofer p. 1024. In two cases amongst the well-to-do, comparatively slight, the appetite was not particularly defective and in one case of a young lady the appetite is said to be very good. No doubt in all cases there is failure of nutrition.

In hysteria it is not surprising that anorexia is frequently present.

In Neuralgia we have the condition of a hungry nerve calling out for nutriment. The condition is relieved momentarily if not permanently by a rapidly digestible stimulant. There has in most cases (unless
due to pressure (or rheumatism) been deficient appetite and indigestion previously. As regards pain itself like all powerful emotions, it may take away appetite and hence sometimes the condition is kept up.

In mental diseases we not unfrequently have the body in tolerable working order. But some of these ailments are caused by defective feeding, while others if not so distinctly caused are relieved or cured by constant and unrewarded feeding.

**Case XIII**

**Melancholia has for a prominent symptom refusal of food.** I attended a lady aged 57 a few months back who in the most positive manner refused to be fed. For weeks she existed lying in bed, on an astonishingly small amount of food and drink. No appeals to her
Sense of duty to herself, or friends, nor to save her life, were of the slightest effect. A few injections of beef tea were given and rather than submit to this discomfort she submitted to be fed. Pergmin suppositories were administered two and then one a day. The case ultimately recovered, though the mental faculties were slow in clearing up. She now eats I am told, as much as twice or thrice an ordinary person. For fully a week at one time she was maniacal.

In Puerperal Mania there are generally as premonitory symptoms sleeplessness and refusal of food.

Case XIV: Mrs. P., multipara, had engaged me to attend her in her 4th confinement. She was taken ill and pains coming rapidly. W. She was delivered before I could
reach the house, in fact before she could get into bed. Extraordinary and most violent excitement came on— with total sleeplessness which nothing seemed to alleviate. She was removed to an asylum where she died.

Case XV

Mr. J. had had five girls, and after the sixth, a boy was born. She went on satisfactorily, then after 2 months the boy had acute bronchitis so that his life was despaired of. The excitement and watchfulness proved too much for her. When the boy was convalescent she became manic and refused food and was sleepless. Bromide was the chief sedative and constant feeding. She improved, became quite well and remains so. I attended her 4 months ago with another child. At the
first sign of sleeplessness, the sedative was resorted to—feeding was very carefully attended to—she got on well.

D. A. Campbell Clark published in Lancet—1883, a number of cases of Puerperal Mania. In some of these he finds the appetite good, in others variable, in some bad, or unrecorded. He finds:

One of the first indications for treatment is to attend to state of the principal vises. But it is to be noticed that forcible feeding is frequently resorted to and that the first signs of recovery noted are generally return of sleep and of appetite. Probably the appetite even in these cases where it is stated good was simply that feeding was possible.

Mania in general Austin has pointed out—is to be treated not by bleeding but by the administration of food in
the form of stimulants, at first, followed up by other nutrients more permanent though less immediately available.

But while Acute Mania—though not caused by want of food—is yet to some degree cured by its careful administration, in the later stages when some degree of dementia with comparative calmness supervenes, the appetite is often normal and the patient drops on a prolonged unenjoyable imbecile existence for years.

Anorexia there is a prominent symptom in many divers diseases—
But there are certain conditions when Anorexia is present. When there is failure of the vital powers. According to Avicenna, Opium spoils the appetite as from its action, it depresses (the vital powers) or the mineral centre.

What is meant by depression, by failure
Case XVI

of the vital powers? A railway porter is brought into Hospital, with two sides fractured & compound fracture of the left forearm. Not mortal injuries, but he is dead. In shunting, he had let the wagons get on the wrong lines nearly eleven exactly meeting another wagon. When he went between the wagons to couple them, the moving buffer instead of striking its opposite, hit him on the head. He crept out from between the wagons, stood for a few moments, threw his arms up & dropped down dead. No P.M. was made but what doubtless happened was that the stomach being distended, (it was just after dinner hour) had received a severe blow & conveyed its violence to a large & vitally important set of ganglia, perhaps suppressing the heart. (through this pressure partly, p. 466)

Case XVII

A child, has Scarlet Fever, and is so depressed by the poison, that it dies in the hours after the commencement of the disease. (Atteius Practice of Medicine I. 466)

Case XVIII

A young girl is ill of Typhoid, comes through the tedious three weeks, the temperature falls;—but in a day or two begins to rise, the patient gets weaker & weaker, the vital powers fail, and death ensues.
In all these cases there is more or less rapid, but complete, failure of the vital powers. In the first case we call it "shock," but this is only an expression for its suddenness. In Foster's Physiology we find: "When we come to study the central nervous system, we shall again and again see that the immediate effect of operative interference with those delicate structures is a temporary suspension of nearly all their functions. This is nearly often spoken of as "shock," and may be regarded as an extreme form of inhibition," or more frequently a cessation of function. [We do not here speak of death of a part, as of a finger in severe frostbite.] It is curious on the other hand to observe sometimes failure of the general powers while minor systems are continuing.

Case XIX. A lady was suffering from typhoid with very irregular temperature, proving fatal on the 12th day. The day before death she began to menstruate, at her regular period. In advanced phthisis also, whilst rapid destruction is going on in the lungs, other portions are found to be undergoing repair.] What we signi...
then by "failure of the vital powers" is something analogous to "shock." The whole nervous system, the conscious and the blindly vegetative (reflex) approaches an end of all its functions. Its manifestations are, feebleness of the whole motor system, increasing diminution of secretions and all those various functions which make up the sum total of life. The intelligence—of course unequal to prolonged effort—may remain unclouded, or become clearer as the end approaches. Invariably the appetite is lost.

Anorexia is ever a sign of some failure of the vital powers. If the failure—or shock—is incomplete, by the continued administration of nutrient, opportunity is given for rallying. This is especially the case in Fevers, where after so many days the depressant effects of the fever poison pass off. If the nutrition have been fairly kept up, the patient's chances of rallying are ever so much improved. Therefore it was an idle boast of Graves. The

* And yet the Venerable Bede enquired while translating the Gospel of John into Anglo-Saxon.
fever.

According to a recent theory, the administration of assimilable nutrient increases the number of white corpuscles which swallow up and destroy the specific febrile germ.

When the vital powers are regaining strength — when the tide of life begins to flow, while other signs and symptoms may not, the sure sign of a hopeful prognosis is the return of the appetite. The healthy life begins to manifest itself, and this by this only. It is a common observation, more common than correct, that when a patient becomes feverish he is getting better. As Constace Smith points out, in severe illnesses in children, the shedding of tears is an infallible prognostic of recovery.

Case... A boy of 8 suffered from cerebral meningitis. There was no distinct tuberculous history among his relations, but a younger sister had died a year before of what I was assured was the same disease. Everything looked hopeless, but I observed a tear drop on his eyelid. He wanted to sit up whereas his clothes were, although utterly unable to move,
Nineill be lacrymal. | 0
| | 0
| | 0
| | 0
| | 0
| | 0

Case II. A child of this age had scarlet fever badly, and subsequently acute nephritis, so seriously that his life was despaired of. His feeding was most difficult throughout the illness. But even before the appetite had much improved he sat up in bed, called for his joint, broke it with feeble fingers began to joint, as it happened a donkey. By chance blue was the colour he took, this sense of humour was greatly tickled by the blue donkey. This little incident was sufficient to justify a decidedly hopeful prognosis, which likewise was justified.

When the appetite returns there is often a craving for some indigestible article of food. Sausages, bacon, etc. This is interpreted by Dr. Pollock and Dr. Brunton as a craving for salt. Not I think, invariably so, as in several cases of gastric ulcer, where it seemed safe to allow solid food, bacon was the first article of solid food taken, and always with a good result. In another case, where paanada of chicken had previously agreed, paanada containing
mutton was followed by alarming symptoms. Mutton generally disagreed with this patient. The instincts of convalescents are in the main true, except that they should not be allowed to eat too much at a meal.

Note on the "blindly vegetative" division of the Nervous System, a function of which is the normal appetite just as Thought, Feeling, and Volition are of the Cerebrum. Let us limit ourselves to one of the vital functions, say the secretion of mucus. This is under the control both of the Sympathetic (or Sympathetic) and of the Sympathetic System. During activity the mucigen is used up to provoke the mucus of the Saliva, being probably converted into mucus, and is discharged from the cell, while at the same time the protoplasm takes a fresh start to grow in space, and thus a fresh supply of mucus, deeply staining, protoplasm takes the place of the mucigenous matrix which has been lost. The function of the Sympathetic nervous influence is the rapid maturation and discharge of secretion, while that of the sympathetic is slowly to promote.
the growth storage of fresh pus to form a coagulum ready against the fresh discharge of secretion. Failure of vital power must therefore comprise diminution to the vanishing power of spinal (or cerebrospinal) through lacking spinal) nerve function — with or without loss of consciousness — and (2) of the activity of the sympathetic ganglions.

Treatment. The treatment of the ordinary forms of Anorexia has long been indicated throughout the paper, but a few words may be here submitted by way of summary. First, endeavour to remove those conditions which originate or keep up. This often is met with first by abstinence complete or partial, from all food whatsoever, i.e., by weight to the organ implicated. In all cases the presence of chronic catarrh of the fauces, nose, pharynx, stomach, intestines, must be looked for and treated. The beneficial influence of nitrate of silver solution is marked in cases of peculiar catarrh, and leads one to suppose it useful likewise in chronic gastric catarrh. In a few obstruc-
cases I have found 1/2 - 1/4 grain in a spoonful of Ag. A little at
least twice a day of great service. Then
Nux Vomica (within limits of Dr
Skelly's prescription) chiefly. Quinine &
other vegetable tonics, acids,
Quinine & Iron, according to
the indications of each particular
case. In nearly all nervous
disorders where Anorexia is
prominent, and in all cases
where the vital energies threaten
to give way, feeding frequently
and to a suitable amount is
required. In such cases the
contra-indication from the presence
of faulty cataracts are to be ne-
lected.

There remain still two ailments
which, as we see, group themselves
consequently under any of the foregoing heads
but which must not be omitted.
Neurasthenia. A woman, some-
times a man, has broken down
under severe trouble, some sudden
shock, such as grief or money losses,
or from excessive mental or bodily
strain. At first there may have
been a debility, increasing gradually, more and more yielded to, until all power of effort is lost. Coincident with this is the total loss of appetite—sometimes going on to vomiting—the profound anaemia, and the consequent wasting of the tissues. Occasionally the starting point of this condition is uterine derangement. It is described in Dr Wilks's book on Nervous Diseases (1883) as Hysterical Anaemia. He then mentions the case of a young lady who died 3 years after she came under his observation. At one time an exploratory abdominal operation was performed by a surgeon who saw the case. At the post mortem no abnormal could be found. Dr Wilks does not state whether atrophy of any part of the brain were present. There is no evidence of the occipital lobes would have been of interest, if these be suggested as the site of the appetite.

Neurasthenia occurs at all ages and the subjects may be when in health of a very energetic temperament—highly intelligent; not what we would now merely consider hysterical. It is probably a disease of the sympathetic system, arising
primarily through inhibition of the Central Centers, and the Sympathetic system becomes involved.

Anorexia Nervosa, or Apepsia Nervosa is very distinct. Want of appetite, slow pulse, precipitation, low temperature, cold extremities are its chief manifestations. Opposed to Nervasthenia, the subjects are most energetic. A case is narrated by Sir W. Gull in Lancet for 17th March of this year, where pulse was 47, temperature 97. The subjects are mostly girls past the age of puberty, during the period of bodily development. It is perhaps due to defective development of the sympathetic without implication of spinal motor system. It begins without apparent cause. Slight degrees are not uncommon.

The treatment of both these diseases - Nervasthenia and Anorexia Nervosa is the same. The principal item is feeding, overfeeding, in spite of the Anorexia, which they resist.
as the case improves. Hysteria sometimes complicates Neurasthenia, but neither disease is a form of Insanity. The abstinence from food is not suicidal. In Neurasthenia may supervene in the course of other diseases as in the case of Miss E. (case 80) feeding gaining time for the system to recover. Rest brings about the cure in Neurasthenia. As to Apoplexy, Neurasthenia some more directly remedial agent is perhaps possible.

By way of Appendix is presented a paper which appeared in 1833 in the British Medical Journal.

I certify that this thesis was composed by myself without assistance.

George Brightow

A friend kindly assisted in copying partly my MS. which was on paper of a large size.

George Brightow
The question of the performance of milk or cream in certain proportions or its "real and apparent quality" is a subject of great importance. Milk is not the best edible substance for the maintenance of good health, as is generally believed. It is the object of experimentation to determine the properties of milk in the various stages, and to ascertain whether it is applicable to certain diseases, as it is generally believed.

The milk, taken from the cow, is the same as that from the other animals, and is not affected by the food of the animal. It is, however, greatly influenced by the character of the animal, the climate, the age, the health, and the constitution of the animal. It is, therefore, necessary to be extremely careful in the selection of the milk, and to examine it carefully before it is used.

The quality of milk is best determined by the amount of fat, which is usually expressed in terms of percentage of the total weight of the milk. The percentage of fat varies greatly with the composition of the milk, and is influenced by the age and health of the animal, the diet, the climate, and the season. It is also affected by the method of processing and storage.

In the production of milk, the cow is the most important animal, and the quality of its milk is determined by the food which it is given. The milk of cows which are fed on grain and hay is usually of higher quality than that of cows which are fed on forage only. The milk of cows which are fed on a well-balanced diet, containing a sufficient amount of protein and minerals, is usually of higher quality than that of cows which are fed on a diet which is deficient in these substances.

In conclusion, it is evident that the quality of milk is influenced by a number of factors, and that the best milk is obtained from cows which are fed on a well-balanced diet, and which are in good health.