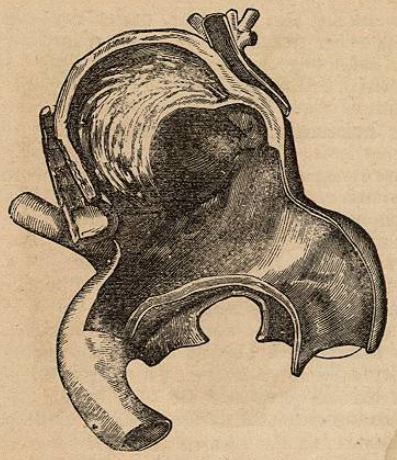
Fig. 68.



Aneurism of the Aorta.

other signs then make clear the disease. There are, however, cases of thoracic aneurism entirely *latent*, until death; no distinct sign making the affection known, even to a careful observer.

The course of aortic aneurism is usually very gradual—often lasting for a number of years. Death occurs—1, from sudden rupture and copious hemorrhage; 2, from slighter rupture and slow leakage; 3, from slow exhaustion by pressure, interfering with respiration, deglutition, etc.

The **causation** of thoracic aneurism is obscure. It occurs nearly always in rather elderly people, in whom the process of degeneration of the vessels has commenced; but now and then it is met with before middle life. It is, relatively, frequent among soldiers.

The following points may be added in regard to its clinical history (see *Stokes* on the Heart and Aorta):—

1. The effects of the aneurismal pressure may vary from time to time; much more than they do in cancer.
2. The aneurismal impulse may be even stronger than that of the heart; but a feeble impulse in some instances attends a large aneurism.
3. Destruction of one or more vertebræ from absorption under pressure (as shown by autopsy) is not uncommon.
4. Phthisis is often associated with aneurism of the aorta.

(See remarks upon the *Sphygmograph*, in Part I., Section II., of this book.)

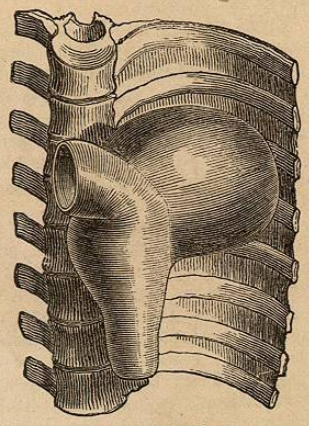
### ABDOMINAL AORTIC ANEURISM.

Of this, the **signs** and **symptoms** are—deep-seated severe pain (occasionally intermitting) in the back and abdomen, increased by certain movements; unaccompanied by fever, but resisting all treatment; later, muscular spasms of the lower limbs, displacement of the liver, and the manifestation of a pulsating abdominal tumor, felt upon palpation, over which there is dulness of resonance upon percussion. The higher up the aneurism, the more severe are the pains and other symptoms of disturbance.

Aneurism of the aorta may, without careful examination, be confounded with aortic *pulsation* without tumor (common in dyspepsia, etc.), or with neuralgia, rheumatism of the bowels, colic, worms, disease of the liver, caries of the spine, psoas abscess, or cancer. Only the discovery of a distinctly *pulsating tumor* (not a tumor moved by subjacent pulsation) can establish the presence of aneurismal disease. An additional sign of value is a localized "bruit" or aortic murmur heard along the course of the spine.[1]



Fig. 69.



Aortic Aneurism.

The **treatment** of either thoracic or abdominal aortic aneurism is, generally, null. *Hygienic measures* may retard decline, and careful self-management may avert a sudden catastrophe; that is mostly all. Exertion and excitement must, of course, be prohibited altogether. Dr. Sibson urges the importance of limiting the *amount of fluid* taken by the patient, to a pint daily; in order to lessen the volume of the blood, and thus reduce the pressure upon the sac.

Dr. Headland Greenhow reports[2] the *entire cure* of a case occurring in an able-bodied seaman, aged 28, by pressure (continued, at intervals, for three or four hours at a time) with Lister's tourniquet upon the aorta above the tumor. Drs. Murray, Moxon, and Durham (in 1864 and 1872) have reported two other successful cases, under the same treatment. Dr. S. F. Speer had two recoveries under gallic acid internally, with iron.[3]

## AFFECTIONS OF THE ORGANS OF DIGESTION.

### STOMATITIS.

**Definition.**—Inflammatory disease of the mouth.

**Varieties.**—1. Simple stomatitis. 2. Aphthæ. 3. Thrush. 4. Inflamed ulcer or cancrum oris. 5. Gangrene of the mouth. 6. Mercurial sore mouth or salivation. 7. Nursing sore mouth. 8. Scorbutic disease of the mouth.

**Simple Stomatitis.**—From taking very hot or corrosive liquids into the mouth, it may become inflamed; this condition being shown by redness, swelling, soreness and heat of the tongue, gums, lining membrane of the cheeks, palate, and fauces. Corrosives (as sulphuric acid or creasote) may *whiten* the mucous membrane superficially.

The course of such an affection is generally simple and brief—recovering in a few days under mild treatment. *Glossitis*, however, or inflammation of the tongue, may be more obstinate and serious. I have seen the tongue so swollen as to protrude from the mouth for more than a week, too large to return.

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[1] W. More, in Dublin Quarterly Journal of Medicine, August, 1869.
[2] British Med. Journ., June 14, 1873.
[3] Med. and Surg. Reporter, March 28, 1874.

Slight ulcerations and fissures often occur in simple stomatitis, increasing the soreness and pain; and increase in the flow of saliva is common.

**Treatment.**—In the beginning, holding ice, iced gum-water or flaxseed tea frequently in the mouth, or, if a corrosive agent be the cause, almond oil or dilute glycerin [F. 50], will soothe the irritation. In violent glossitis, leeches may be applied to the swollen tongue; even free *incisions* may be called for to relieve its swelling; later, solution of alum (ʒij in f℥vj of water) or sulphate of zinc (gr. j in f℥j) may be used as a wash. Remember that such articles ought not to remain in contact with the teeth, the enamel of which they may impair.

**Follicular inflammation** of the mouth is recognized by small red elevations over the tongue, soft palate, etc. This is common in infants during dentition; as well as in adults of deficient general health. It requires no speciality of treatment.

**Aphthæ.**—These are small ulcers, with whitish surfaces, following a vesicular eruptive inflammation of the mouth. The vesicles are small, round or oval, of a pearly appearance, and contain serum.[1] They break in a few days, leaving a sore white ulcer, with redness around it. They may be scattered or confluent. Fever may attend the latter, with disorder of the stomach. Though not common in the earliest infancy, children sometimes have this disease, but less often than adults. Decayed teeth may produce it. On the whole, it is to be considered rare. Its duration is generally a week or two, but confluent cases may last a month, and have occasionally been fatal.

**Treatment.**—The constitutional condition may require cooling laxatives or saline diaphoretics, and gastric irritation may call for antacids, as bicarbonate of sodium or magnesium. Chlorate of potassium should be given, 5 to 20 grains four times daily. Locally, at first, flaxseed tea or gum-water, or a solution of glycerin in rose-water, may be frequently applied. When ulceration occurs, a powder, consisting of equal parts of prepared chalk and pulverized gum arabic [F. 51], may be dusted or laid over each of the ulcers, several times a day. Some prefer a mixture of glycerin and prepared chalk, of the consistence of a soft paste. A wash of borax, myrrh [F. 52], alum, sulphate of zinc [F. 53], or acetate of lead, may also be applied. If the ulcer prove severe or obstinate, strong solutions of sulphate of zinc (15 grs. in f℥j of water) or nitrate of silver (20 grs. in f℥j), or solid sulphate of copper, may be used to touch the ulcerated surface every day or two.

**Thrush: Muguet.**—This is much more frequent in infancy. Its peculiarity is, the occurrence, after a day or two of diffused inflammation, of a number of small whitish points within the mouth, which coalesce and form patches of a whitish curd-like exudation (often confounded with *aphthæ*). In bad cases it may become brownish. This may fall off and be renewed, more than once.

[1] Dr. J. Worms asserts the discharge of aphthous vesicles and ulcers to be *sebaceous*. He, therefore, regards aphthæ as a sort of *acne* of the mucous membrane.



The mouth is hot, the stomach disordered; vomiting and diarrhœa may occur, with some fever. The attack lasts from one to two or three or more weeks; being seldom dangerous except in children otherwise in poor health. It sometimes attacks adults.

**Nature.**—The specific nature of the curd-like exudation appears to be connected with a *microphytic* (minute vegetative) growth, to which the name of *oidium albicans* has been given.

**Treatment.**—Experience favors the internal administration of *chlorate of potassium* [F. 54] in all severe forms of sore mouth. In the absence of a *rationale* by which its special applications might be definable, I would employ it in thrush as well as in aphthæ, etc. A child under five years of age may take from one to five grains of the chlorate, in solution, several times daily. As a laxative, magnesia will be suitable. Feeble cases may require quinine, beef-tea, whisky and milk, in quantities proportioned to condition and age.

Locally, at first, we may use flaxseed or gum arabic emulsion—then glycerin and rose-water (one part to four or five), borax in solution (2 drachms in 4 ounces) or in powder, equal parts with sugar—and later, tincture of myrrh in water (f℥ss in f℥ij), alum in solution, or sulphate of zinc, or muriatic acid with honey and water (acid. hydrochlor. ʒj, mellis vel syrupi f℥j, aquæ f℥ij); the latter being applied carefully with a camel's-hair pencil, occasionally.

**Cancrum Oris.**—Canker of the mouth is characteristically ulcerative, from the commencement. It begins on the cheeks, gums, or lining of the lips; but may reach the fauces. The ulcer is grayish or yellowish-white, with an inflamed border and environs; the cheek may swell from it externally. It is quite painful. Saliva flows freely, and the odor of the breath is offensive. Fever is often present. The complaint may last for several weeks or even months; but it is almost never fatal. It is most common in children, from two to six years of age.

**Treatment.**—Besides general measures, *adapted to the condition of the patient*, the same local applications mentioned as appropriate in different forms of sore mouth, may be used. Direct touching of the ulcer with a strong solution of sulphate of zinc (gr. xv vel xx in f℥j), or with the solid bluestone (sulphate of copper) twice daily, will do the most for its cure; especially with the intermediate "dressing" of powdered chalk and gum arabic, and occasional washing with glycerin and rose-water.

**Gangræna Oris.**—Extreme inflammation or ulceration, in the mouth as elsewhere, may end in gangrene; but this affection is peculiar, and may be unconnected with any severe inflammation.

A morbid state of the system seems to predispose to it. It occurs mostly in children, but has been met with in adults.

There is, at first, an ash-colored ulcer, most often on the gums or inside of the cheek. If the latter, it is accompanied by swelling. Spreading, it assumes a sloughing character; the breath grows fetid; acrid fluid is discharged, with copious salivation; other ulcerations are formed, the bones of the face are affected with necrosis, and the teeth fall out. Penetrating the cheek, mortification may go on rapidly, reaching sometimes even the ethmoid bone.

Low fever and prostration attend these local changes; later, diarrhœa, colliquative perspirations, and death. The only well-marked promotive *causes* of this very serious disease are, bad air (especially *crowd-poison*) and insufficiency of food. When treated early, it is often quite manageable; but after extensive sloughing has occurred, the prognosis is bad.

**Treatment.**—Early, I should always try the chlorate of potassium. Quinine and tincture of chloride of iron [F. 56] will be required on account of the tendency to prostration. Beef-tea and wine whey, or brandy, or whisky punch, *pro re nata*, are called for, by the same indication.

To the part, at first, the astringent lotions, mentioned already, may be applied. When the gangrenous condition becomes pronounced, a solution of liquor sodæ chlorinat. in glycerin (f℥j in f ℥ij) may be applied frequently. Solution of creasote in glycerin, or in water (gtt. iij to gtt. xx in f℥j) may meet the same purpose; or permanganate of potassium (gr. x in f ℥j); or chloride of zinc (gr. j in f℥j); or sulphite of sodium (℥j in f ℥j); or bromine (℥ss in f ℥ij).

**Mercurial Sore Mouth.**—Salivation is made known in its approach, by a "coppery" taste, soreness of the gums, tenderness of the teeth when pressed together, with redness and swelling of the gums, and a broad white line just beyond their edge. The tongue also may swell. The flow of saliva increases greatly; the cheeks and even throat may grow sore and painful; the breath offensive. Ulceration of the gums takes place in severe cases, with loss of the teeth. Even sloughing may follow, approaching the state of things in *gangræna oris*. Difficulty of swallowing may be so great as to threaten starvation; and irritative fever may result from the local disorder.

**Treatment.**—Moderate salivation will always pass away in a few days, spontaneously. A good mouth-wash for it is brandy and water, one part of the former to four of the latter; alum may be added to it [F. 59], or a little tincture of myrrh. Ulcers or sloughs should be treated as in other varieties of stomatitis.

Opium may be called for, at least at night (*e. g.*, Dover's powder 10 grains at bedtime), by the distress of the system. Milk diet, or some other liquid nourishment, must be given during the difficulty of deglutition. In good practice, at the present day, no physician ever seriously salivates a patient.

**Nurses' Sore Mouth.**—Women who suckle children, and sometimes those who are advanced in pregnancy, are liable to ulcerative stomatitis. It begins with small, hard, painful swellings on the tongue and cheeks, which ulcerate and are attended by a great deal of local, and sometimes constitutional irritation. When the infant is weaned, the affection subsides soon.

**Treatment.**—Chlorate of potassium has in this complaint a special curative power. 20 grains of it may be given three or four times daily. Iron, quinine, etc., and full nourishment, may be required in subjects of obvious debility. Local treatment, such as has been given for *cancrum oris*, etc., will also have its utility.

*Scorbutic* mouth affection will be dealt with in another part of the book—under *Scurvy*.



### TONSILLITIS.

When severe, this is commonly known as *quinsy*. Soreness of the throat in swallowing, with pain or swelling of one or both tonsils, and fever, are its symptoms. Unless relieved in a few days, the pain becomes very constant and throbbing, dysphagia is extreme, and, when the patient begins to be seriously alarmed, a tonsillar abscess breaks, or is opened by the physician, and recovery soon follows.

**Treatment.**—A dose of citrate or sulphate of magnesium, or other cooling aperient, should be given the first day. Then, wine of ipecac., twenty drops every three hours, with frequent draughts of flaxseed tea or flaxseed lemonade. If the swelling, heat, and pain of the throat are great, apply (in an adult) from 20 to 40 *American* leeches to it. Then, or instead, in mild cases or feeble subjects, poultice with flaxseed meal to which lard and laudanum have been added; bathing, when the poultice is changed, with liniment of ammonia, or soap liniment to which aqua ammoniæ has been added. If still severe, and not certainly suppurating, a *small* blister may be applied, or the part may be painted with tincture of iodine. When an abscess is evidently forming, poultices will be better, until it is ready to open from within.

Lancing the suppurated tonsil requires care not to wound the internal carotid artery. The point of the lancet should be directed towards the middle, not to the outside of the throat.

Not unfrequently, especially in children, repeated attacks of non-suppurating inflammation of the tonsils will leave them inconveniently enlarged. Sometimes persevering use of astringent gargles, or touching daily with strong solution of tannin or nitrate of silver, will make them shrink to the normal size. If not, excision of a part of the tonsil may be proper. With Fahnestock's, or any other guillotining instrument, the operation is easy and safe; at all events if it be not attempted to remove the whole gland, which is not necessary.

### PHARYNGITIS.

Slight sore throat is among the commonest of affections, requiring for its treatment only mild gargles (as alum in flaxseed or sage tea), demulcents (flaxseed or gum arabic or slippery elm infusion), or laudanum and water, 1 part to 8, fomentation with volatile liniment or spirits of turpentine, and a dose of some saline cathartic, with *slop* diet. With children who cannot gargle, finely powdered alum may be blown into the fauces and throat, through a tube or quill, more readily than in any other way.

**Chronic** pharyngitis is often a much more troublesome, though not dangerous disorder. The mucous membrane becomes permanently hyperæmic, almost granulated; with either abnormal dryness or a thickened secretion; and constant soreness. In the treatment of this, all the different astringent, demulcent, and alterative applications may be tried—sometimes without success. When nitrate of silver, tannin [F. 60], sulphuric and muriatic acids, sulphate of zinc and acetate of lead have been found to fail,

it may happen that ice, or gargling often with ice-water, will prove more useful.

Counter-irritation, with repeated small blisters, tincture of iodine, or croton-oil, is always a suitable and important part of the treatment of chronic inflammation of the throat.

**Ulcerated sore-throat.**—This may be idiopathic, syphilitic, or tuberculous. The first is most common.

The treatment in the first variety consists in the local application of bluestone or, lightly touched, solid nitrate of silver to the ulcers, if within reach. The syphilitic will require also iodide of potassium [F. 61] internally (gr. v vel x ter die); the tuberculous, tonics, generous diet, and cod-liver oil.

### RETROPHARYNGEAL ABSCESS.

This most often follows fever as a sequela; but is altogether rare; perhaps least so in children, in whom, however, it is liable to be overlooked. It is shown to the careful observer by dysphagia and dyspnœa, much increased by the recumbent posture; yet not, as in croup, increasing rapidly from day to day, or disappearing in a short time. There is also stiffness of the neck, and swelling on one or both sides of it. In such circumstances a finger passed over the tongue into the pharynx may find a firm projecting tumor occupying its posterior and lateral walls. It may prove fatal by asphyxia, or by preventing the patient from swallowing food. When diagnosticated in time, the matter may be let out by opening the abscess with a lancet through the pharyngeal wall. In an adult, a trocar will be safer, the head being rapidly bent forward after the operation, to prevent suffocation by the discharge suddenly entering the air-passages in breathing.[1]

### STRICTURE OF THE ŒSOPHAGUS.

This is uncommon. Its principal causes are, if structural, corrosive poisons, swallowed; or ulceration of the throat, involving the œsophagus, and contracting upon cicatrization. Functional stricture may be spasmodic, as in hysteria. Dysphagia, not otherwise accounted for, and obviously low down in its seat, or the rejection of food partly swallowed, may lead to a suspicion of stricture; and examination with a bougie will fix the diagnosis. For the structural affection I know of no appropriate treatment except dilatation with bougies made for the purpose, applied for a short period, oiled, once or more daily.

### GASTRITIS.

**Simple gastritis,** in an acute form, is very rare. I have met with but one case of it, in a woman who was kicked over the stomach by her husband. Corrosive poisons almost always involve the intestinal tube with the stomach. The most common form of "idiopathic" gastric inflammation is "gastro-hepatic catarrh," or "a bilious attack," in which the stomach, duodenum, and liver are all somewhat involved.

[1] Aberlin, Schmidt's Jahrbucher, No. 5, 1872.



*Signs* of stomachic inflammation are, epigastric pain and tenderness on pressure, rejection of all food and drink, jactitation, and fever; the pulse, however, being kept down by the impression made upon the circulation by constant nausea.

*Post-mortem* evidences of gastritis are—redness, browner or deeper and more livid than natural, and dotted, stellated, or arborescent, rather than diffused; moreover, not confined to dependent parts; enlargement of bloodvessels; in acute cases, softening of the mucous membrane; in more lengthened ones, either softening or hardening and thickening; abundance of thickened mucus; rarely, coagulable lymph; almost never, pus.

**Gastro-hepatic catarrh** (Chambers) may follow any of the causes of indigestion, or exposure to cold and wet. There is nausea, or vomiting of greenish-yellow fluid, generally not copious, but very acrid; headache and dizziness; constipation of the bowels, and fever. In the treatment of this, *magnesia* is a good quieting stomachic and cathartic; many will be relieved as soon by a bottle of solution of citrate of magnesium. Ice, melted in the mouth and swallowed slowly, will give comfort. Rest and abstinence from food as nearly as possible may, with the above, generally complete the cure in two or three, or not many more days.

The best *preventive* or *abortive* of a "bilious attack" is *blue pill*, timely administered. Let the first nausea, constipation, and headache be met by giving at bedtime two or three grains of blue mass in pill (the "*lang syne*" portion was from six to twenty), followed in the morning by a teaspoonful or two of Husband's magnesia. If the bowels are free, bicarbonate of sodium (which is a mild cholagogue as well as antacid) will be better; the eighth part of a teaspoonful at a dose.

**Sick headache** is usually a modification of the above, the sympathetic cephalalgia being especially severe. In some persons it is periodic. The treatment above mentioned, with rest in bed, will be adapted to a majority of cases of it. *Oil of turpentine*, in moderate doses, has been recently said (W. Begbie) to be remedial for it. Dr. Kennion[1] advises solution of bisulphide of carbon, applied to the temples or behind the ear, for a short time.

**Acute softening of the stomach** is described by a few French and other writers, as a rapidly prostrating and dangerous affection in children, sometimes epidemic. Its symptoms are said to be, at first, those of simple gastritis; then, with or without diarrhœa, great agitation, prostration, want of sleep, and insensibility—and death in one or two weeks from exhaustion. I have never met with any such case. An irregular fever with gastric irritation (gastric fever or infantile remittent) once had a regular place in the nosological catalogue among fevers. It appears to me to be scarcely uniform enough for so special a designation or consideration.

**Acute dilatation of the stomach** has been reported upon especially by Dr. C. Hilton Fagge.[2] It is very rare. Its symptoms are those of severe abdominal disease; particularly, profuse

[1] Brit. Med. Journ., June 13, 1868.
[2] Guy's Hospital Reports, vol. xviii. 1873.

vomiting. As physical signs, we have rapidly increasing, *unsymmetrical* distension of the abdomen (largest on the left side), and a widely extended tympanitic resonance over the dilated region. In treatment, evacuation of the stomach by aid of the stomach-pump appears to be indicated; with continued rest to the organ, nourishment being afforded by *enemata*.

### CHRONIC GASTRITIS.

While the same doubt as to the pathological correctness of the *name* (indicating inflammation) exists in the case of this disease as in other "chronic inflammations" (see *General Pathology*), an affection of some distinctness of character, commonly called by the above title, is often observed. With the greatest brevity, we may indicate its symptomatology by contrasting it with that of *atonic dyspepsia*.

| In Chronic Gastritis. | In Atonic Dyspepsia. |
|---|---|
| Much epigastric tenderness. | Little or no epigastric tenderness. |
| Pain increased by active exercise or stimulating food. | Pain not increased by exercise, lessened by stimulating food. |
| Vomiting usually. | Vomiting rarely. |
| Eructation of gas rarely. | Eructation of gas commonly. |

Chronic gastritis is apt to be obstinate, but not dangerous to life.

**Treatment.**—Counter-irritation over the epigastrium, by repeated vesication, will be useful. Internally, *nitrate of silver* [F. 62], in pill, beginning with gr. $\frac{1}{4}$, with gr. $\frac{1}{8}$ of opium, and increasing in a few days or a week, gradually rising to 1 gr. thrice daily, with a proportionate quantity of opium, I believe, upon experience, to be the most valuable medicine. Subnitrate of bismuth [F. 63] is for the same condition lauded by some. Most important is a *bland diet;* lime-water and milk, arrowroot, tapioca, sago, jellies, cracker soaked in ice-water, etc., in small quantities at short intervals. Ice will often quench thirst to better advantage, without disturbing the stomach, than water. The *skim-milk* regimen (Karell) may be adapted to some cases of this disease.[1]

### ANTI-EMETIC REMEDIES.

Vomiting is so frequent and troublesome a symptom, in many diseases besides inflammation of the stomach, as to demand much practical study from the physician. For this reason, though quite in deviation from systematic routine, I here introduce an enumeration of the most available medicines used for the relief of the *symptom* of vomiting—the selection among them depending upon the judgment of the practitioner as to the real *cause* of that symptom. At the same time it is clear that many of these remedies prove useful for vomiting when produced by very different and almost opposite causes; the symptom, *as such*, rationally demanding medication when we are uncertain or in search of its cause.

[1] See an article by S. W. Mitchell, M.D., Philadelphia Med. Times, March 15, 1871.



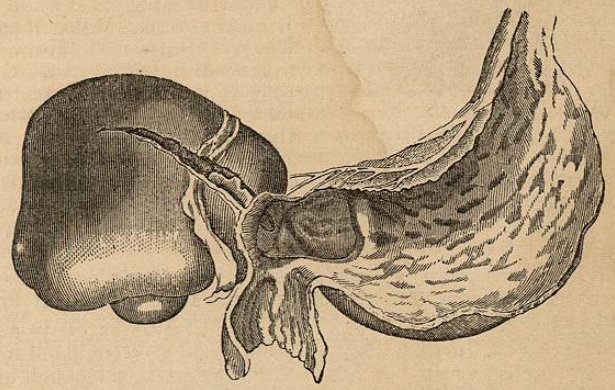
Ice.
Lime-water.
Mineral water.
Effervescing draught.
Champagne.
Brandy.
Paregoric.
Solution of morphia.
Aromatic spirit of ammonia.
Comp. tinct. of cardamom.
Comp. sp. of lavender.
Bicarbonate of potassium.
Bicarbonate of sodium.
Magnesia.
Camphor.
Calomel, small doses.
Blue pill.
Creasote.
Cinnamon-water.
Infusion of cloves.
Hydrocyanic acid.
Aconite.
Chloroform.
Hydrate of chloral.
Nitrate of silver.
Oxide of silver.
Subnitrate of bismuth.
Oxalate of cerium.
Enema of laudanum.
Spice poultice.
Sinapism. Belladonna plaster.
Blister; surface being dressed with acetate of morphia (gr. ij, with gum acaciæ, gr. x).
Hypodermic injection of morphia.[1]

[See F. 64, 65, 66, 67, 68, 69, 70.]

### ULCER OF THE STOMACH.

This serious affection is rare after the middle of life. It is most often met with in feeble systems, especially in women.

Fig. 70.



Ulcer of stomach.

**Symptoms.**—Dull, sickening pain in the stomach, extending to the back, with *localized* tenderness on pressure. The pain is increased by motion, and by food, especially by *hot* food, or by sugar.

[1] For sea-sickness, the ice-bag to the spine is said by Dr. John Chapman to be remedial. In my own experience of this sometimes very obstinate affection, iced effervescent (carbonic acid) water has given more relief than anything else. Hydrate of chloral internally, and morphia by hypodermic injection over the epigastrium, are reported upon favorably of late in its treatment.

Vomiting occurs, not copious, but rather frequent. Vomiting of *blood* is an important sign; it is impossible to be certain of the existence of an ulcer in the stomach without it. The amount of blood thrown up at once may be very small.

It is often difficult to diagnosticate gastric ulcer from *chronic gastritis*, as well as from *cancer*, *caries of the spine*, and *aortic aneurism*. No hæmatemesis, however, is met with in the first, third, and last; and a tumor, at some period, will make known cancer. So will angular deformity demonstrate spinal caries.

*Perforation*, causing peritonitis, and copious *hemorrhage*, are the most dangerous terminations of gastric ulcer. The signs of the former are, abdominal swelling and diffused pain, with collapse.

**Treatment.**—Bland diet is very important. Arrowroot, tapioca, sago, corn-starch, rice, eggs, and lime-water and milk are suitable. Beef or mutton tea (concentrated) will be better for feeble patients than solid food.

Fig. 71.

Perforating ulcer of stomach.

Nitrate of silver, in pill with opium [F. 62]; oxide of silver, in 1 or 2 grain doses; and subnitrate of bismuth, are given with the hope of promoting cicatrization of the ulcer. Opium alone, in pill, or laudanum, etc., or conium or belladonna, as anodynes, when the pain is severe. When hemorrhage is threatening,[1] ice, creasote (½ drop to 2 drops), tannic or gallic acid, acetate of lead, oil of turpentine (small doses), tincture of chloride of iron, ammonio-ferric alum. Hypodermic injection of morphia has been used with advantage, especially to check vomiting, in this affection.

### CANCER OF THE STOMACH.

**Scirrhus** of the **pylorus** is the most common form; occasionally the cardiac orifice is the seat of cancer. It is a frequent form of cancer; as of 9118 cases of cancer in Paris in four years, 2303 affected the stomach. The usual symptoms are pain, in rare instances absent or nearly so, often excruciating; epigastric tenderness, about in proportion to the pain; vomiting of food, mucus, and "coffee-grounds," or mixed blood and mucus, almost never pure blood; acidity or other symptoms of indigestion; fetid breath; decided constipation; emaciation, and cachectic, almost jaundiced, sallowness of complexion; sometimes irritative fever. The diagnosis is made nearly certain by the discovery of a tumor; not absolutely so—as the tumor may be fibroid, and not malignant.

[1] The same remedies may be used with advantage for hæmatemesis from other causes.



Cancer of the stomach seldom occurs before forty years of age. Its duration averages about a year; it seldom reaches two years. The patient commonly dies by slow starvation, the stomach becoming incapable of digesting and transmitting food.

No treatment can avail for the *cure* of such an affection. To nourish by concentrated articles of diet, as beef-tea, milk, etc., and to allay suffering by judicious use of anodynes, will be all that we can do.

Chloral may be particularly recommended for trial; as, in some cases of cancer of other parts (uterus, breast, etc.), Drs. C. Paul and Martineau have found hydrate of chloral to exercise an especially favorable influence.[1]

*Cancer of the Duodenum*, *Cæcum*, *Rectum*, and *Omentum* are much more rarely met with. Their possibility must always be remembered in considering the diagnosis of abnominal tumors.[2]

### DYSPEPSIA.

Although denied a special place in nosology by recent writers upon diagnosis, clinical experience calls for a separate recognition of this as a disease, complex as is its pathology, and diverse as may be its symptoms. Of the latter only a very general account can here be given.

**Symptoms.**—The patient *feels* his stomach all the time, though not nearly always with pain. When the latter occurs, it is often in the breast, causing suspicion of pectoral disease. Little or no tenderness on pressure exists, nor is there much nausea, nor vomiting. The mouth is clammy, or has a sour or bitter taste. The complexion is sallow. The bowels are costive, and stools deficient in color. Other frequent symptomatic affections are cardialgia (heartburn), pyrosis (waterbrash), hypochondriasis, palpitation of the heart, headache, and disorders of the senses, as diplopia (seeing double), etc. Dyspepsia is not a dangerous, but is frequently a very obstinate disease.

**Pathology.**—The functional disturbances above enumerated have their seat, more or less prominently, in different parts of the digestive apparatus; in the alimentary mucous membrane, glandular, muscular, or ganglio-nervous organs. The distressing gastro-intestinal irritation, cardialgia, pyrosis, etc., are located in the mucous membrane. Defective action of the liver and enteric glands produces constipation, with its consequences; imperfect secretion of the gastric juice and pancreatic secretion impairs the whole process of digestion. So does atony of the muscular coat of the stomach; while deficient power of the peristaltic intestinal contraction is perhaps the most *common* cause of constipation. Possibly the presence of *torulæ* (*saccharomyces*) may increase the formation of acetic and lactic acid from farinaceous and saccharine food, in some cases. Insufficient or perverted *innervation* may originate or intensify any or all of these morbid states and actions. Sometimes this is so obviously primary and predominant, as to

[1] Lancet, March 14, 1874.

[2] Dr. D'Arpen, of Elba, has reported the apparently curative effects, in cancer of the *rectum*, of enemata of *gastric juice*. Lancet, March 18, 1871.

justify the use of the term, in certain cases, of "nervous dyspepsia."

**Causation.**—Most briefly, we may assert the cause of dyspepsia to be, either one or several of the following: too much food, or too little food; imperfect mastication, and hurry in eating; too little exercise; too much fatigue; excessive study, or emotional excitement; inordinate use of ardent spirits, opium, tobacco, coffee; or of medicine out of place.

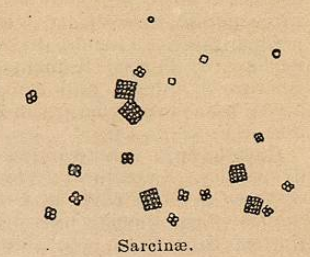
**Treatment.**—This involves *regimen*, as well as medication; the first is most important. The meals should be regular, and with sufficient time allowed; and all the food should be simple as well as nutritious; variety being obtained rather by having a change from day to day, than by a number of dishes at each meal. Some dyspeptics are obliged to eschew variety, and confine themselves to a routine of beef, mutton, and stale bread. Caution should be used not to blame, unjustly, particular articles as "disagreeing," when everything disagrees, because of the state of the stomach. But a sensible person will be able mostly to ascertain what things agree *best* with his digestion; and others should not be taken.

Most persons even of feeble digestion can eat beef, mutton, chicken, turkey, oysters (not fried nor raw, but roast, panned, stewed or steamed); with stale bread, bran bread occasionally, as more laxative; crackers, boiled rice, tomatoes, and young and tender beets. When weak enough to require any stimulant, sherry or Madeira wine, or ale, or in the feeblest, brandy, will agree best at dinner. Let Dr. N. Chapman's precept be here remembered, "whatever we grant, *let it be sparingly.*" Advise, for example, *half* a wineglassful of Madeira or sherry, or half a tumblerful of ale, or one or two *teaspoonfuls* of brandy or whisky, at or after dinner.[1] For breakfast and supper, tea will be the best drink for refreshment; milk for nourishment; although some persons do not digest milk with ease. Coffee I have so often known to *produce* dyspepsia, that I would forbid it altogether; notwithstanding its toleration by some highly respectable authorities. Cocoa is too *rich* for most dyspeptic stomachs; some find it acceptable. Fruit, especially when fresh, as a general rule is useful; peaches, in season, are so with few exceptions. Stewed fruit also is excellent for laxative effect. Preserves, cakes, and pies must be avoided. If a full meal cannot be taken without discomfort, it will be better to appease hunger or sustain strength by a small and simple "bite" between meals. Idleness and emptiness, as well as repletion, in the stomach, promote disorder. Dr. Brown-Séquard has proposed to treat obstinate cases of dyspepsia by administering very *small* quantities of digestible food, at very *short intervals*. Sometimes, in desperate cases, this may be temporarily important; but it must soon become inconvenient and tiresome, if, as he advises, the intervals be made so short as fractions of an hour.

Exercise, daily, in the open air, is very important to the dyspeptic. So is bathing, to maintain healthy action of the skin, with which the stomach sympathizes. But active exercise ought not to be taken just before or just after a meal. "After dinner sit awhile."

Mental states, and nervous impressions, are of great consequence. Anxious occupation, or harassing responsibility, may increase greatly the difficulty of recovery. Thus travelling, or resorting to watering-places, with release from care, may assist the cure.

Fig. 72.



Sarcinæ.

The *medical* treatment of dyspepsia involves a number of indications, not always exactly the same. Especially are *tonics*, *laxatives*, *antacids*, and other palliatives and alteratives, apt to be required.

**Tonics.**—Pure vegetable bitters, as gentian [F. 72, 73], quassia, and columbo, are most suitable as direct stomachics. Chiretta is a favorite with some. Oxide of silver has had one or two enthusiastic advocates. Where *nervous debility* is prominent, and particularly in cases of long standing, extract of nux vomica [F. 71], or strychnia in very small doses (one-fortieth to one-thirtieth of a grain) will often do more good than any other medicine. Iodide of iron, in anæmic cases, may be given.

**Laxatives.**—Rhubarb has been, time out of mind, the standby for habitual constipation [F. 75, 76, 77]. If it be insufficient alone, or lose its effect, compound extract of colocynth, aloes, or resina podophylli may be added, in pill. Senna, magnesia, and sulphur may be used occasionally, for special indications. Saratoga, Cheltenham, and Vichy waters are found sometimes to have excellent regulating effects.

**Antacids.**—After meals, a pinch of bicarbonate of sodium (gr. v to gr. x) or half as much bicarbonate of potassium, or a dessertspoonful of lime-water, will, in cases of acidity, contribute much to the comfort of the patient. Carbonate of magnesium and aromatic spirit of ammonia are preferred by some; and *charcoal* has useful absorbent powers. Sulphite and hyposulphite of calcium or sodium, for antiseptic effect, may also be given to allay the after symptoms of indigestion.

**Alteratives.**—In the commencement of the treatment of a case of dyspepsia, in which derangement, and commonly inaction, of the liver is most generally present, experience fully justifies the moderate use of blue pill. I prefer to give it in fractional doses, in such a case, say gr. $\frac{1}{4}$ thrice daily for a week [F. 74]. Occasionally it may require to be repeated, at intervals; but should never be pushed to salivation. Nitro-muriatic acid, in 3 or 4 drop doses, acts as a mild tonic both to the stomach and the liver; and may well follow blue mass, when hepatic torpor is believed to exist. The same indication may be met, with less certainty, by taraxacum. Nitric acid is lauded by some practitioners. Leube urges hydrochloric acid instead. Among the agents shown by Corvi-

[1] The author must dissent strongly from Dr. Anstie's opinion, that even a perfectly *healthy* adult will receive benefit from the use of at least an ounce of alcohol, in some form, daily. Perfect health, I believe, is best maintained with *none*. The recent experiments of Dr. Parkes and others fully sustain this opinion.

sart, Blondlot, Lehmann, and Bernard to increase the secretion of gastric juice, were alkalies, common salt, diluted alcohol, ether, ipecacuanha, and nitrate of bismuth.[1]

**Cardialgia** seems to depend mainly upon acidity, aggravated perhaps by butyric fermentation. Aromatic spirit of ammonia, tincture of ginger, and camphor-water, as well as the antacids above named, may be given for it; or chloroform, in 5 or 10 drop doses [F. 78].

**Gastrodynia** is a technical name for stomach-ache, common in dyspeptics. Carminatives are appropriate for it; one of the best of these is oil of cajuput, 4 drops at a dose, on a lump of sugar. Spirits of camphor, compound spirits of lavender, compound tincture of cardamom, and essence of ginger, are among the most popular preparations for its relief. A mouthful of very hot water will sometimes quell the pain.

**Pyrosis** is best treated by mild astringents; as oil of amber, catechu, krameria, ammonio-ferric alum [F. 80], creasote ($\frac{1}{2}$ drop or $\frac{1}{4}$ drop doses) [F. 81], tincture of chloride of iron. Dr. Lawson considers the *sulphites* to be almost infallible in the treatment of pyrosis.

For *hiccough*, which is an occasional symptom of either acute or chronic indigestion, *hydrate of chloral* has lately been found[2] to be a useful remedy.

After all, the dyspeptic may be able to do the most for his own cure. In the words of the late Prof. N. Chapman, "If he be intemperate, he is to become sober; if he use opium or tobacco, he must relinquish it; if indolent, he must be awakened to enterprise; if luxurious, he must consent to change his scheme of life; if studious, to abandon the midnight lamp; if afflicted, we must cheer him with the light of hope; or, if this be difficult, give him the great consolation of occupation, interest, employment."

The following table is, with slight modification, from Leared :—

| EASY OF DIGESTION. | MODERATELY DIGESTIBLE. | HARD TO DIGEST. |
|---|---|---|
| Mutton, | Beef, | Pork, |
| Venison, | Lamb, | Veal, |
| Hare, | Rabbit, | Goose, |
| Sweetbread, | Young pigeon, | Liver, |
| Chicken, | Duck, | Heart, |
| Turkey, | Wild waterfowl, | Brain, |
| Partridge, | Woodcock, | Salt meat, |
| Pheasant, | Snipe, | Sausage, |

[1] Dr. Chambers, of London, speaks well of "Boudault's *pepsin*," obtained from the sheep's stomach. Dr. Pavy, of London, states that a large part of Boudault's pepsin is inert. Glycerin extract of pepsin is said by some good authorities (Nature, 1870) to be active and stable. Dr. L. Beale asserts that pepsin can be obtained in an effective state by quickly drying the mucus expressed from the pig's stomach-glands upon glass plates; the dried mucus being then powdered and kept in stoppered bottles. (Med. Press and Circular, March 1, 1871.) The late Prof. William Procter, of Philadelphia, perfected a process for obtaining a reliable preparation of pepsin, which can now be obtained of the leading American druggists. Dr. R. T. Edes (Boston Med. and Surg. Journal, Jan. 1, 1874), after examination, speaks very favorably of pepsin prepared by Schaffer's process. Really good pepsin is sometimes useful to dyspeptics.

[2] Leavitt, Am. Journ. of Med. Sciences, April, 1871; and Whithead, N. Y. Med. Record, April 1, 1871.



| EASY OF DIGESTION. | MODERATELY DIGESTIBLE. | HARD TO DIGEST. |
|---|---|---|
| Grouse, | Soups, | Hashes, |
| Beef-tea, | Eggs, | Mackerel, |
| Mutton broth, | Butter, | Eels, |
| Milk, | Turtle, | Salmon, |
| Turbot, | Cod, | Herring, |
| Haddock, | Pike, | Halibut, |
| Flounder, | Trout, | Salt fish, |
| Sole, | Raw or stewed oysters, | Lobster, |
| Fresh fish generally, | Potatoes, | Crabs, |
| Roasted oysters, | Beets, | Shrimps, |
| Stale bread, | Turnips, | Mussels, |
| Rice, | Cabbage, | Oil, |
| Tapioca, | Spinach, | Melted butter, |
| Sago, | Artichoke, | Raw eggs, |
| Arrowroot, | Lettuce, | Cheese, |
| Asparagus, | Celery, | Fresh bread, |
| Sea-kale, | Apples, | Muffins, |
| French beans, | Apricots, | Buttered toast, |
| Cauliflower, | Currants, | Pastry, |
| Baked apples, | Raspberries, | Cakes, |
| Oranges, | Bread, | Custards, |
| Grapes, | Farinaceous puddings, | Nuts, pears, plums, |
| Strawberries, | Jelly, | Cherries, pineapples, |
| Peaches, | Marmalade, | Cucumbers, onions, |
| Toast water, | Rhubarb plant, | Carrots, parsnips, |
| Black tea, | Cooked fruits, | Peas, beans, mushrooms, |
| Sherry, | Cocoa, | Pickles, |
| Claret, | Coffee, | Chocolate, |
| Ale. | Porter. | Champagne. |

## CONSTIPATION OF THE BOWELS.

There is no more frequent source of bodily discomfort than this; and it may produce or increase a tendency to disease. The principlal *causes* of constipation are—neglect of timely attendance upon the call of nature; want of exercise; excess of mental strain; and all the causes of dyspepsia, of which it is an almost constant part. Organic obstructions may also, of course, give rise to it; as stricture, cancer, or other disease of the large intestines, or a tumor so situated as to the press upon the rectum; or pregnancy. The most remarkable instances of constipation I have met with, in the absence of mechanical obstruction, have been in sea-sickness.[1]

**Effects** of inaction or non-evacuation of the bowels may be, enteric irritation, or even inflammation; when much prolonged, dangerous intestinal obstruction; in other instances, diarrhœa; sympathetic headache, stomach, or liver disorder; urino-genital irritation; offensive perspiration; and contamination of the blood, by the retention of excretory matter which the bowels ought to remove.

**Pathologically,** costiveness may depend either upon muscular torpor of the intestinal canal, or defective glandular secretion, or both.

[1] I have, when at sea, passed seven days without any inclination for a movement; and a gentleman told me that he had been eleven days without an evacuation during a voyage.