

## XVII. VENEREAL DISEASES.

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## MODERN SURGICAL THERAPEUTICS.

### I. THE THERAPEUTICS OF INFLAMMATION.

THE PREVENTIVE TREATMENT OF INFLAMMATION.—*The Removal of Irritation—The Importance of Rest—Limiting the Supply of Blood to the Part—Cold Applications—Warm Immersion—The Use of Veratrum Viride.*

THE IMMEDIATE TREATMENT OF INFLAMMATION.—*Constitutional and Local Treatment—The Asthenic and Irritative Types of Acute Inflammation; Chronic Inflammation—General Medical Treatment.*

RÉSUMÉ OF REMEDIES.—*Internal Remedies—Cold—Electricity—Friction—Heat—Lotions—Poultices—Venesection—Diet in Inflammation.*

#### THE PREVENTIVE TREATMENT OF INFLAMMATION.

##### THE REMOVAL OF IRRITATION.

“The first duty of a surgeon in impending inflammation,” says the late Prof. N. R. SMITH, M. D., of Baltimore, in one of his lectures, ‘is to remove all sources of irritation.’ (*The Baltimore Medical Journal and Bulletin*, Jan., 1871.) These may be mechanical irritants, as some foreign body whose presence may be unsuspected by the patient, especially in the case of children. Leaden bullets and polished needles cause the least irritation of any classes of foreign bodies. Prof. SMITH, in his fifty years’ experience, never saw a case of tetanus caused by a needle. Other sources of irritation may be pressure, as in bed-sores, friction, as of broken bones, malformation, etc.

The irritant removed, the next duty of the surgeon is to place the



part in a state of complete repose. If the eye be hurt, let it be closed, and the light excluded. If a joint, a bone or a muscle has been irritated, let it rest in an easy posture.

The local effects of narcotic applications are often exceedingly grateful. The tincture, or, better still, the aqueous solution of *opium*, will often strikingly soothe the irritated nerves of a part. In injuries of the eye a solution of *atropia*, gr. v to water f. ℥j, applied with a wet rag, will subdue promptly intense neuralgia and other forms of pain. Bruised *stramonium* leaves are also a useful application.

#### THE IMPORTANCE OF REST.

Every surgeon should bear in mind the importance of *rest*—not merely local, but the quiet repose of the system generally—as a preventive measure against inflammation. To insure this, Mr. G. W. CALLENDER, of London, recommends the free administration of *opium*. He does not wait until the patient is restless and fails to sleep, but by a full dose he anticipates such a condition and prevents its occurrence; he does not postpone the anodyne until evening, but exhibits it as soon as the dressing of a wound is completed. After an anæsthetic, he recommends the prompt administration of morphia by subcutaneous injection, so as to avoid any disturbance of the stomach. Even where the patient avers that he cannot take opium, it is generally found that he progresses well under the influence of this sedative, especially if he does not know that he is taking it. Locally, all the arrangements for the dressing of a wound, for its position and protection, must be made with the object of strictly maintaining rest; the daily changes of dressing can and ought to be so arranged that they will not occasion the slightest disturbance of the parts.

Especially is general rest essential when the lower extremity is the seat of disease; when the body has experienced a severe concussion; or when the brain, lungs, intestines or kidneys are threatened with severe inflammation. In such cases, remarks Dr. D. HAYES AGNEW, "the value of absolute repose is incalculable, both as a prophylactic and a cure."

#### LIMITING THE SUPPLY OF BLOOD TO THE PART.

Although the abstraction of blood from an inflamed part is one of the oldest operations in surgery, the idea of forestalling excessive inflammation by mechanically limiting the access of blood is of recent date.

Dr. TITO VANZETTI, of Padua, has practiced with success *compression* of the main artery leading to the inflamed part, thus diminishing the amount of the blood to what is necessary for or compatible with the separative process. This measure often avoids exhaustive suppuration and gangrene, as well as promptly relieves pain. It has been adopted with much success by Mr. SAMPSON GAMGEE, of London.

As early as 1813, Dr. H. U. ONDERDONCK, of New York, and latterly Mr. C. F. MAUNDER, of London, have practiced *ligation* of the main artery of an extremity after severe injury, and with the happiest results. The latter states his conclusions as follows:

That ligation of the superficial femoral artery has arrested acute inflammation consequent on wound of the knee-joint.

That ligation of a main artery will quickly diminish profuse suppuration, and prevent death by exhaustion.

That, while it arrests profuse suppuration, it will, by allowing the patient to gain strength, afford an opportunity for amputation at a future time.

That gangrene and secondary hemorrhage, as the result of ligation, should not be anticipated in the healthy subject.

That the dread of these has arisen from our knowledge of the consequences of the ligation in instances of known diseased vessels—aneurism, for example.

That the arterial tension of the rest of the body will be increased beneficially by the ligation.

#### COLD APPLICATIONS.

The *local preventive* treatment of inflammation, according to Mr. ERICHSEN, is best carried out after removing sources of irritation and placing the part in repose, by the free application of *cold*. If the injury be superficial, and not very severe, lint dipped in cold water, frequently removed, may be applied; or, if the skin be unbroken, an evaporating lotion may be applied. Should the injury be severe, cold irrigation will be preferable. This may be done by suspending over the part a large, wide-mouthed bottle full of cold water; one end of a skein of cotton, well wetted, is then allowed to hang in the water, while the other is brought over the side of the bottle. This, acting as a syphon, causes a continual dropping upon the part. Dry cold has the advantage of not scalding the part, and is less apt to be followed



by gangrene. It is best applied by putting ice into a thin vulcanized india-rubber bag.

#### WARM IMMERSION.

Professor FRANK H. HAMILTON, M. D., of New York, has of late years strongly urged as a preventive measure against traumatic inflammation the use of *warm water* instead of cold, and of *immersion* as superior to irrigation. (*Richmond and Louisville Medical Journal*, January, 1874.) He places the injured part in a water bath constantly maintained at a temperature of 90°–95° Fah., and keeps it there from one to three weeks. When from the position of the injury this is not practicable, he covers with several thicknesses of sheet lint, previously saturated with tepid water, and encloses this with oiled silk. When the bath can thus be employed, little or no inflammatory reaction takes place, and gangrene is very successfully avoided, even in exceedingly severely lacerated and contused wounds of the extremities. Dr. HAMILTON, from an extended experience, much prefers this to the cool or cold prophylaxis of inflammation.

#### THE USE OF VERATRUM VIRIDE.

The exhibition of *veratrum viride* has been advocated by Dr. C. WOOD, Jr., as of great value in preventing inflammation after severe abnormal injuries, indeed, after any severe injury. The patient should be placed at rest, and restricted to a low diet, while the tincture of veratrum should be administered very carefully, so as to keep the pulse as depressed as possible, but at the same time to avoid vomiting. To secure this latter, opium should be combined with the veratrum.

A similar use of the drug has been urged by others. Dr. D. W. JONES, of New York, correctly points out that "the peculiarly beneficial effects of veratrum are experienced at that point where, in the initial stages of inflammation, congestion in the part has taken place, but the period of effusion has not yet been reached." (*Medical and Surgical Reporter*, April, 1872.) When there is present an inflammatory condition of the stomach and bowels, it must be used with great caution or not at all.

## THE IMMEDIATE TREATMENT OF INFLAMMATION.

PROF. S. D. GROSS, M. D., PHILADELPHIA.

This author divides the treatment of inflammation into two heads, the constitutional and local treatment.

*Constitutional Treatment.*—At the head of the list of constitutional remedies for inflammation he places *general bleeding*. He believes that this is not often enough resorted to at the present day. The blood should be taken from a large orifice in a large vein, the fluid running to the amount of at least f. ℥ ij a minute, the patient either sitting or standing. The operation is called for where there is a hard, strong, full and frequent pulse, a plethoric state of the system, and great intensity of morbid action. An average amount to take is sixteen to twenty ounces. If syncope supervenes, it should be relieved gradually by loosing the clothes, fanning, or sprinkling with cold water; if it assumes an alarming character, ammonia to the nostrils, sinapisms over the heart and to the extremities, and a stimulating enema, may be called for. As calling for caution in the use of this measure, or for its prohibition, are the circumstances of extreme youth or age, corpulence, the nervous temperament, in exhausted states of the system, in exanthematous diseases, and after grave accidents.

The use of *cathartics* is particularly valuable in inflammation of the brain and its membranes, the eye and ear, throat, respiratory organs, liver, skin and joints. They are generally contra-indicated in gastritis, enteritis, peritonitis, cystitis, wounds of the intestine, and strangulated hernia. In external inflammations, as well as in inflammations of the supra-diaphragmatic organs generally, one of the most useful cathartics is an infusion of senna, or of senna and Epsom salts, combined with a carminative.

|                     |          |    |
|---------------------|----------|----|
| 1. R. Infusi sennæ, | f. ℥ ij. |    |
| Magnesiæ sulphatis, | ℥ ij.    | M. |
| For one dose.       |          |    |

Enemata are often more prompt and efficient than cathartics by the mouth. An excellent one is

|                 |             |
|-----------------|-------------|
| 2. R. Soapsuds, | one quart.  |
| Vinegar,        | two ounces. |



Whatever material may be used, the important rule is to mix it with a sufficient quantity of fluid, warm or cold, to distend the lower bowel. The patient should be placed upon his side or belly during the introduction of the nozzle of the syringe.

The value of *mercurials* in inflammation, both during its height to arrest its progress, and later to promote absorption, is very great. It is particularly conspicuous in phlegmasias of the fibrous and fibro-serous tissues, synovitis, carditis, arteritis, hepatitis, splenitis, osteitis, laryngitis, orchitis, iritis and syphilis. There is, however, a point in inflammatory affections prior to which mercury should not be given. This point is characterized by softness of the pulse, a relaxed condition of the skin, moistening of the skin, and a general tendency to restoration of the secretions. As a sorbefacient in chronic cases, it should be administered in a gentle and persistent manner, the gums being merely touched. For this purpose the bichloride may be given, or blue mass in small doses. Where a prompt and powerful impression is desired, the best article is calomel, in doses of gr. iij-v, every three, six or eight hours, until we have attained the object of its exhibition. Gray powder, a favorite with many, is unworthy of reliance. To prevent the mercurial passing off by the bowels, it may be combined with opium, gr.  $\frac{1}{2}$ -j; and when the skin is hot or dry it may be added to tartar emetic, ipecacuanha, or Dover's powders. As counter-indications of mercurials may be mentioned age, anæmia, and the strumous habit of body.

The use of *emetics* in inflammation is at the present day limited almost exclusively to cases in which there is marked gastric and bilious derangement, as is noted by nausea and vomiting, headache, lassitude and pain in the back and limbs. They must be carefully avoided in inflammations of the sub-diaphragmatic organs, in cephalic and cardiac diseases, in herniæ, fractures and dislocations.

In acute inflammations, especially of the respiratory organs, joints, and fibrous structures in young and robust subjects, *depressants* are entitled to a high position. The most trustworthy are tartar emetic and ipecacuanha. *Tartar emetic* may be administered gr.  $\frac{1}{8}$ - $\frac{1}{4}$  every two, three or four hours. If it produces vomiting, a small quantity of the salts of morphia should be added to it. In children, this should be an invariable rule. The dose of *ipecacuanha* as a depressant varies from gr.  $\frac{1}{4}$  to gr. iss. It is peculiarly adapted to the inflammatory affections of children. Whichever article is employed, it is well to

withhold all drinks from fifteen minutes to half an hour after the dose is taken, in order to avoid vomiting. At the end of this time diluents may be used with benefit. *Aconite* is particularly adapted to neuralgic, gouty and rheumatic affections, and to the higher grades of traumatic fever. From gtt. j-v of Fleming's saturated alcoholic tincture of the root, repeated every two, three or four hours, is the usual form. *Veratrum viride* is applicable to the same class of cases. From gtt. v-viiij of the saturated tincture of the root, every two, three or four hours, is the usual dose. Great care is demanded in its use, as it easily causes dangerous symptoms. *Digitalis*, as a depressant sedative, is not of much or any value.

An important class of remedies in inflammation are *diaphoretics*. Though many are known, but few are reliable. These are tartar emetic, ipecacuanha, Dover's powder, and spirit of mindererus. The best form to administer antimony is in a combination like the following:

|       |                             |                                      |    |
|-------|-----------------------------|--------------------------------------|----|
| 3. R. | Antimon. et potassii tart., | gr. $\frac{1}{10}$ - $\frac{1}{8}$ . |    |
|       | Morphiæ sulphatis,          | gr. $\frac{1}{8}$ - $\frac{1}{4}$ .  |    |
|       | Aquæ,                       | i. $\bar{z}$ ss.                     | M. |

This amount every two, three, or four hours.

Dover's powder is an excellent form for ipecacuanha, grs. xv-xx, every eight, ten or twelve hours. The action of these remedies should always be aided by tepid drinks, and if there be much dryness of the surface, by frequent sponging of the body with tepid water. When there is nausea, dry skin, excessive thirst and great restlessness, the very best diaphoretic is lemon juice, in tablespoonful doses, saturated with bicarbonate of potassa, the salt being added slowly and gradually till all effervescence ceases. A twelfth of a grain of tartar emetic, or a few drops of tincture of aconite, may be added as an arterial sedative.

Of the various *diuretics* employed in inflammation, the most important are *nitrate of potassa* and *colchicum*. The former may be employed in doses of gr. xv-xxx every three, four, five or six hours in a large quantity of water. *Colchicum* may be employed as follows:

|       |                         |                       |    |
|-------|-------------------------|-----------------------|----|
| 4. R. | Tinct colchici seminum, | f. ʒj.                |    |
|       | Morphiæ sulphatis,      | gr. $\frac{1}{2}$ -j. | M. |

This amount once daily, at bed-time.



This is far superior to three or four smaller doses, which only irritate the kidneys and bowels.

*Anodynes* are particularly beneficial in inflammation attended with violent pain. In giving them, depletory measures and catharsis should precede them, if there is plethora or fecal distension. Full doses are required and they should preferably be given at bed-time. The best anodyne is *opium* and its derivatives. *Bromide of potassium* is valuable in all low forms of inflammation attended with loss of sleep, nervous excitement, and gastric irritability. Full doses, gr. xx-xxx every two hours or oftener, are called for. *Hydrate of chloral* is a speedy, trustworthy soporific. The full dose is gr. xxx, repeated every few hours.

There are few cases of acute inflammation in which, sooner or later, *tonics* do not prove indispensable. Of them all, by far the most valuable are quinine, and the tincture of the chloride of iron with brandy, whisky or wine. Alcohol in some form is the most trustworthy tonic and stimulant. The choice of the form may be left to the patient.

In most cases a combination of the remedies above described may be advantageously used. For this purpose Dr. GROSS recommends the following:

ANTIMONIAL AND SALINE MIXTURE.

|       |                                |           |    |
|-------|--------------------------------|-----------|----|
| 5. R. | Antimonii et potassii tart.,   | gr. ijss. |    |
|       | Magnesiae sulphatis,           | ʒ ij.     |    |
|       | Morphiae sulphatis,            | gr. ʒi.   |    |
|       | Aquae destillate,              | f. ʒ x.   |    |
|       | Syr. zingiberis vel simplicis, | f. ʒ ij.  |    |
|       | Acid. sulph. aromat.,          | f. ʒ ss.  |    |
|       | Tinct. verat. viridis,         | f. ʒ iss. | M. |

Of this combination the proper average dose is half an ounce, repeated every two, three, four or six hours. Should it produce emesis or severe nausea, the dose must be diminished. Colchicum may be added when there is a rheumatic or gouty state of the system, quinine when there is a tendency to periodicity, and copaiba when there is renal or cystic trouble. The quantity of morphia may be increased when there is much pain.

*Local Treatment.*—The local remedies of inflammation consist of rest and elevation of the affected part; the local abstraction of blood by scarification, puncture, leeching or cupping; compression, by the bandage or adhesive plaster; destructives, as the use of the cautery to poisoned wounds; counter-irritants, especially blisters; and the local application of antiphlogistics.

Of the last mentioned, *water*, cold or warm, simple or medicated, is of immemorial use. Dr. GROSS generally prefers warm water to cold; a good rule, however, is to consult the feelings of the patient, and employ that which is more agreeable to him. The water may be rendered anodyne, astringent or antiseptic, by the addition of opium, acetate of lead or some of the chlorides. When ice cannot be obtained, it may be rendered cold by the addition of one-sixth its bulk of alcohol, or by hydrochlorate of ammonia and nitrate of potassa. In employing cold water, the part is exposed, to favor evaporation; in the use of warm, it is covered, to maintain the heat.

*Fomentations* are often very beneficial in inflammations of the joints and internal viscera, as cystitis, gastritis and enteritis. The most simple consists of a large and thick flannel cloth, well wrung out of hot water, and applied lightly to the part as hot as it can be borne. Two such cloths should be used, so that when one is taken off the other may immediately be applied.

*Stuping* is conducted with a piece of flannel rolled into a ball, which the patient holds in a small pitcher, at such a distance from the affected part that the vapor may ascend to it, the cloth being wet as often as it becomes cool. It is particularly serviceable in affections of the eye, nose, mouth and throat.

*Poultices* should be changed three or four times a day. They should be light, of medium consistence, and applied at about the temperature of the body. Even when quite mild they sometimes act as irritants.

Water and poultices are generally much increased in efficacy by adding hydrochlorate of ammonia, acetate of lead, or solution of the subacetate of lead. The first mentioned is especially called for where there is extensive effusion of fibrin, or fibrin and blood. Vinegar adds to its efficacy.

|       |                           |              |    |
|-------|---------------------------|--------------|----|
| 6. R. | Hydrochlorate of ammonia, | one ounce.   |    |
|       | Vinegar,                  | one ounce.   |    |
|       | Water,                    | half gallon. | M. |

Goulard's extract (solution of the subacetate of lead) is valuable for its astringent and sedative properties.

|       |                          |          |    |
|-------|--------------------------|----------|----|
| 7. R. | Liq. plumbi subacetatis, | f. ʒ ij. |    |
|       | Aquae,                   | ʒ j.     | M. |

When pain is present, laudanum or morphia may be added to this;



but these articles must be cautiously applied to open wounds or sores. The best medium for applying these solutions is a double layer of old, soft flannel, kept constantly wet by pressing the fluid upon it with a sponge.

In very many inflammations of the cutaneous and mucous surfaces, *nitrate of silver* is an indispensable agent in treatment. It may be used as a vesicant or as an alterant; but much judgment is required in its employment, as it is capable of immense harm. The *tincture of iodine* is also exceedingly valuable as an antiphlogistic. For external use, it should be diluted with an equal quantity of alcohol, the mixture being brushed on with a camel-hair pencil until the skin is of a deep yellowish color. This may be repeated every eight, twelve or twenty-four hours, according to the exigencies of the case. When for the tonsils, uvula or other delicate parts, the dilution should be still greater.

MR. JOHN ERIC ERICHSEN, OF LONDON.

*The Treatment of the Asthenic and Irritative Types of Acute Inflammation.*—This surgeon draws forcible attention to the importance of distinguishing between the *sthenic* and *asthenic* types of surgical inflammation. The more he has seen of this form of disease, the more convinced has he become that the stimulating plan of treatment is the only method of carrying patients through those low forms of visceral inflammation that are so frequent in hospital practice. If the tongue, the pulse, and the general character of the symptoms partake of the asthenic or irritative type, we cannot at any period have recourse to the depletory and depressant treatment recommended in sthenic inflammation; even if the inflammatory fever assumes this latter form, and yet the broken constitution, the advanced years, the exhausted constitution, or the cachexia of the patient, or the congestive and passive character of the local inflammation, gives reason to believe that the constitutional symptoms will not long continue of this type, we should proceed with great caution. Bleeding should be avoided, the bowels should be cleared out, the patient kept quiet, on a moderately low diet, and diaphoretic salines administered.

As the symptoms merge into the typhoid type, the pulse growing quicker and weaker, the tongue dry and dark, some stimulant in combination with the salines is demanded. The carbonate of ammonia, in doses gr. v–xv, may be given with bark, or in an effervescent form with gr. xv of bicarbonate of potash and a sufficient quantity of citric

acid every third or fourth hour. The nourishment must be increased, and wine or alcoholic stimulants must be conjoined with it. Overstimulation must be avoided, which may be done by observing the influence on the pulse and tongue of the treatment adopted.

When from the first asthenic symptoms show themselves, tonics and stimulants should be freely administered, with bland and easily assimilable food, as beef tea, eggs and farinaceous food. Ammonia and bark, wine, brandy and porter, with meat extract and arrow-root are often imperatively demanded in large quantities to save the patient's life. The brandy and egg mixture, if well made, combining nutriment and stimulus, is the best remedy that can be administered in many cases of low inflammation.

As the asthenic passes into the irritative form, opiates should be combined with the general treatment. When congestive pneumonia and asthenic bronchitis supervene, the following draught is advantageous:

|  |                                    |
|--|------------------------------------|
| 8. R. Tinct. camphoræ comp.,<br>Ammonia carbonatis,<br>Decocti senegæ, | ℥ xx–xxx.<br>gr. v–x.<br>ʒ iss. M. |
|--|------------------------------------|

For one dose every three or four hours.

Rubefacients, blisters or dry cups should be applied to the chest. The diarrhoea that not unfrequently occurs must be met with opiates and astringents; and if the urine cannot be passed, it must be drawn off with a catheter.

#### THE TREATMENT OF CHRONIC INFLAMMATION.

In treating chronic inflammations, *hygienic measures* are first in importance. Pure air, a light, digestible, nourishing diet, and cleanliness are indispensable. In the more active forms *mercury* is of great service, but should be avoided in cachectic and strumous patients. The most useful preparations are calomel, gr.  $\frac{1}{8}$ – $\frac{1}{2}$ , or iodide of mercury in the same doses, or the bichloride, gr.  $\frac{1}{16}$ – $\frac{1}{8}$ . *Iodide of potassium* is extremely valuable in chronic inflammation of the fibrous or osseous tissues, or of the glands in strumous patients. The fluid extract of the red Jamaica *sarsaparilla* is also a very valuable remedy, especially in inflammation associated with want of power. In strumous forms of chronic inflammation, *cod-liver oil* is of very great efficiency, especially in children and young people. *Purgatives* are often required in this



form of inflammation. Warm aperients, as compound decoction of aloes with Rochelle salts, answers best. For children the following:

9. R. Hydrarg. cum cretâ, ℥j.  
 Pulveris rhei, ℥iv.  
 Sodii bicarbonatis, ℥ij. M.  
 For one dose, gr. x-xxx.

The local treatment includes local bleeding, warmth and moisture, cold and counter-irritation. Friction is often of great service in this form. In the latter stages the pyogenic counter-irritants—issues, setons and the cautery—may be very advantageously employed. Astringents directly applied to the inflamed parts are of extreme utility in those forms of passive inflammation where the circulation is sluggish and the capillaries loaded. The nitrate of silver, either solid or in solution (gr. j-3j to aquæ f. ʒj), is commonly preferred. Pressure is also of essential service in supporting the feeble vessels in congestive inflammations.

J. MILNER FOTHERGILL, M. D., OF LONDON.

*General Medical Treatment of Inflammation.*—The two varieties of inflammation, sthenic and asthenic, must be broadly distinguished.

In the treatment of the sthenic or active form, the first indications are to lower the temperature and reduce the vascular excitement. To this end, either acetate of ammonia, nitrate or citrate of potash, or the purgative effects of citrate of magnesia, may be used. For the pain a full dose of opium, given at bed-time, is most efficient.

10. R. Pulveris opii, gr. ij.  
 Hydrargyri chloridi mitis, gr. ij.  
 Pulveris Jacobi veri, gr. v. M.  
 For one dose at night.

This may be followed in the morning by a Siedlitz powder, or a glass of some purgative natural water. During the day the following may be prescribed:

11. R. Vini antimon., ℥ xx.  
 Tincturæ hyoscyami, f. ʒ ss.  
 Liquoris ammon. acetatis, f. ʒj. M.  
 This amount every six hours.

Or hydrate of chloral may be combined with opium and camphor.

12. R. Chlorali hydratis, gr. xv.  
 Tincturæ opii, ℥ x.  
 Misturæ camphoræ, f. ʒj. M.  
 Once every six hours.

One or two drops of the tincture of aconite may be given in water every few hours in place of these mixtures. The food in this shape should be bland, nutritious, and easily digestible. Such a combination is found in milk and seltzer water, in chocolate, blanc-mange, beef tea or Liebig's extract, rice water, &c. Cool water, lemonade or weak claret and water, may be freely allowed. Cold applications and poultices may be called for locally.

When by the use of the direct depressants of the circulation the acute symptoms have been abated, an interval not unfrequently elapses between the inflammatory rise and the convalescence proper. Then a line of treatment is to be instituted which is tonic, and yet calculated to control any tendency to another rise of temperature. Such measures we shall find in the union of vegetable tonics with the mineral acids. Nitric, muriatic or phosphoric acid may be combined with quinine, or with gentian, cascarilla or columbo. When a tendency to constipation is present, sulphate of magnesia is the most appropriate tonic. A good form of combination is the following:

13. R. Acidi hydrochlorici diluti, ℥ x.  
 Infusi cinchonæ, f. ʒj. M.

Or the following:

14. R. Acidi hydrochlorici diluti, ℥ x.  
 Quiniæ sulphatis, gr. j.  
 Infusi cascarillæ, f. ʒj.  
 To be given three or four times a day.

As this intermediate condition disappears, actual convalescence should be established. This, however, is frequently retarded by impaired functional activity and loss of tone. The food does not seem to benefit the patient, and there is torpor of the alimentary canal. When this is associated with a tongue coated with a yellowish fur, and with a foul taste in the mouth on awaking, a mercurial laxative is called for. If the appetite is capricious, and assimilation imperfect, a mixture like the following will be found advantageous:



15. R. Tinct. ferri chloridi, ℥ v.  
Acidi hydrochlor. diluti, ℥ x.  
Infusi calumbæ, f. ℥ j. M.

For one dose, three times a day, half an hour before meals.

Or citrate of iron and quinine may be given instead. The bitters act beneficially on the stomach in these conditions. If the bowels be merely inactive with a fairly clean tongue, a little pill, *aloës et myrrhæ*, at bedtime every night, or every other night, will be found sufficient to keep the patient on the right track. If, as often happens, the combination of a vegetable tonic with iron produces a disagreeable sense of feverishness and heating, the addition of a little sulphate of magnesia will generally relieve the symptoms, as :

16. R. Magnesiæ sulphatis, ℥ ss.  
Quiniæ sulphatis, gr. ʒ.  
Liq. ferri persulphatis, ℥ v.  
Infusi quassiae, f. ℥ j. M.

This amount three times a day.

This is an excellent and useful combination where the ordinary quinine and iron mixtures do not agree.

Great care should be taken to protect the patient from sudden changes of temperature, cold, damp, and draughts. Should the increasing appetite lead, as in children it is especially apt to, to excess in eating—to what used to be called “a surfeit”—an emetic followed by a purgative is the proper treatment.

In regard to the diet of the early stage of convalescence, alcohol in the form of the brandy-and-egg mixture is often valuable. Alcohol may also be given instead of opium at night to induce sleep. As convalescence becomes established, little allurements in the nature of the viands is required to tempt the appetite; plain food is taken with avidity, and one must guard against an excess of it.

In the second or asthenic form of inflammation, important modifications of the above treatment are required. This form occurs in systems exhausted from any cause, in the aged and in broken-down constitutions. Such cases are not to be treated by depressants. They require alcohol, ammonia, quinine, beef tea, musk, &c., in liberal quantities and at brief intervals. The utmost possible union of stimulants and tonics with nutritious food is indicated to get the organism safely through this period of peril.

17. R. Ammoniae carbonatis, gr. v.  
Spiritus chloroformi, ℥ xx.  
Infusi cinchonae, f. ℥ j. M.

In one dose every four or six hours.

Wine, milk, beef tea or egg-and-brandy should be supplied at frequent intervals. The ethers of wine make it especially suitable for this organic condition. Needless to add that blood-letting, purgation or other such measures are wholly out of place in such a case.

In regard to the “calomel and opium” treatment of active inflammation, especially of fibrous and serous tissues, Dr. FOTHERGILL’S own experience is chiefly confined to having seen harm done by it, and he believes that it cannot be recommended except in the treatment of inflammatory conditions of syphilitic origin, or occurring in a system saturated with syphilis.

PROF. D. HAYES AGNEW, M. D.\*

Some special features of this surgeon’s treatment of inflammation will be mentioned.

He condemns setons, issues, moxas and the hot iron. As counter-irritants, he has witnessed striking advantages from mustard plasters in light cases; for more chronic cases, *iodine* is invaluable both as a counter-irritant and alterative. The peculiar action of the drug may be secured without any of its unpleasant effects, by using it in the following formula :

18. R. Liquoris iodinii compositi, f. ℥ vj.  
Pulveris sacchari albi, āā  
Pulveris acaciae, gr. xl.  
Aquae destillatae, f. ℥ ij. M.

For local applications.

Dr. AGNEW speaks strongly in favor of *mercurials*, saying: “I should regard their proscription as a public calamity.” The preparations he prefers are calomel, corrosive sublimate and blue mass. Salivation is rarely, if ever, necessary. *Blood-letting* he also considers as of great curative power in frequent cases. After blood-letting, the vegetable depressants *aconite* and *veratrum* come in most happily, holding the circulation down after it has been reduced by the loss of blood; or, in cases not urgent, they may serve as substitutes for the lancet. Antimony is no favorite with him, and he rarely exhibits it.

\* *The Principles and Practice of Surgery*, 1878.