

The general strength must be conserved by concentrated food, easy of deglutition, by nutritive enemata, or by tonics and stimulants.

In *ulcerous sore throat*, the topical treatment is very important. When the disease is superficial, bromine, muriatic or nitric acid, the acid nitrate of mercury, or caustic potassa, may be employed to destroy the diseased tissue promptly, in the hope of exposing a healthy surface beneath. When this fails, or it is too dangerous to attempt, we can only palliate the symptoms by weak solutions of acids and astringents, and must depend on constitutional measures to arrest the progress. Sprays of chlorate of potassa, etc., are often agreeable, but have no direct influence on the disease. The most nutritious food, quinine and brandy, are imperatively demanded to sustain the system.

In *common membranous sore throat*, the treatment is usually the same as in the simple inflammatory form. In some individuals, however, there is a tendency to constant recurrence for weeks and months. With these, dilute acid, applied every day or two, seems to afford more satisfactory results locally than the ordinary astringent and caustic salts. The internal use of iron and cinchona as tonics, and sometimes of opium, not as a narcotic, but rather in small doses as a special stimulant, is also indicated.

PROFESSOR OPPOLZER, OF VIENNA.

Malignant sore throat.—This dangerous form of cynanche is usually acute in its course, lasting from ten to twenty days. Death may result from gangrene, from acute œdema of the glottis, pyæmia, the sudden bursting of the abscess into the respiratory passages, or its descent into the mediastinum. Prof. OPPOLZER treated the disease as follows:

As in all other inflammations, he was fond of beginning with cold moist applications to the part, substituting warm fomentations for these when the patient complained. He believed that his treatment not only favored resolution, but relieved the pain, and he was careful to apply the water as cold as possible, and change the cloths as soon as they became warm. If the symptoms did not abate, or, on the contrary, increased, he next applied leeches locally, and this, as a rule, with the happiest results; the disease either disappearing or taking a mild form. Severe pain was relieved by morphia.

When, in spite of these various means, the swelling continued to increase, and alarming dyspnœa supervened, he lost no time in scari-

fyng the swelling freely, and should this not be successful, in opening the trachea. "When the signs of pus are present," says OPPOLZER, "the surgeon should not hesitate for a moment to reach it with his bistoury. The internal treatment of the patient must be pursued on general principles, and wine, soups, quinine, and the mineral acids administered with discretion. Should the condition become chronic, mercury, iodine and blistering will be found to give the most satisfactory results."

LENNOX BROWNE, F. R. C. S., OF LONDON.

In his recent work, *The Throat and Its Diseases*, (London, 1878,) this writer gives the following formulæ, which he has found specially efficacious:

348. R. Acidi tannici, ℥vj.
Acidi gallici, ℥ij.
Aquæ, ad f. ℥j. M.

Very useful as a styptic gargle, after excisions of the tonsils or ablation of the uvula.

349. R. Liquoris potassii permanganatis, (B. Ph.,) f. ℥j.
Aquæ destillatæ, ad f. ℥x. M.

An antiseptic gargle; at a temperature of 90° to 95°, it may be used as a nasal douche.

350. R. Sodii bicarbonatis, gr. xxv.
Spiritus ammon. aromat., ℥xx.
Infusum gentianæ comp., ad f. ℥j. M.

Very valuable where there are dyspepsia and digestive disturbances in chronic pharyngeal inflammations; and a good alkaline vegetable tonic after recovery from quinsy, etc.

351. R. Sodii salicylatis, gr. xv-xxv.
Syrupi, f. ℥j.
Aquæ, ad f. ℥j. M.

For one dose, every hour, until the pain is relieved in tonsillitis, with pyrexia and rheumatic symptoms.

For RÉSUMÉ OF REMEDIES, see under next section, TONSILLITIS.

TONSILLITIS (QUINSY, CYNANCHE.)

JAMES E. GARRETSON, M. D., D. D. S.

In simple tonsillitis, the following may be employed :

352. R.	Plumbi acetatis,	ʒi.	
	Tincturæ opii,	f.ʒj.	
	Aquæ,	f.ʒ xij.	M.

For a gargle.

In the frequent cases in which the congestion is associated with passivity, resolution will be often quickly effected by the following :

353. R.	Sodii biboratis,	ʒiij.	
	Potassii chloratis,	ʒi.	
	Tincturæ capsici,	f.ʒij.	
	Tincturæ myrrhæ,	f.ʒj.	
	Aquæ,	f.ʒ viij.	M.

For a gargle.

Another practice which the author has found happily applicable to these latter conditions, consists in first brushing the parts with a solution of nitrate of silver, gr. iv to aquæ f.ʒj, and afterward using the following :

354. R.	Tincturæ iodinii compositæ,	gtt. xl.	
	Acidi carbolicæ fluidi,	gtt. vj.	
	Glycerinæ,	f.ʒj.	
	Aquæ,	f.ʒ viij.	M.

For a gargle.

Small particles of ice may be taken into the mouth and allowed to dissolve. A pleasant application is a gargle of flaxseed tea in which chlorate of potash has been dissolved. It should be remembered that sympathetic inflammation of the tonsils is not infrequent.

Free scarification has occasionally been resorted to with the best results. In the vigorous, leeches applied between the angle of the jaw and the sterno-cleido-mastoideus muscle, and blisters on the nape of the neck, will be found of the greatest service. Prolonged hot foot-baths constitute a most satisfactory and reliable means of relief. If general fever is present, it is a good practice to place the patient over a basin of steaming water, and with the form enveloped up to the very mouth in blankets, to secure diaphoresis by plentiful exhibition of the spiritus mindereri—a tablespoonful every ten minutes

until the desired result is produced. A very useful combination, when the fever runs high and the system is irritable, is :

355. R.	Liquoris potassii citratis,	f.ʒ iij.	
	Spiritus ætheris nitrosi,	ʒ ss.	
	Tincturæ veratri viridis,	gtt. xxv.	M.

One to four teaspoonfuls, according to age and condition.

When, in defiance of treatment, a tonsillitis determines toward suppuration, the best that can be done is to hasten the process as rapidly as possible, providing always that the attendant swelling is not formidably extensive. In these latter cases nothing better can be done than to make early incisions. Where the swelling is not extensive or threatening, a gargle of *flaxseed tea* will be found both soothing and encouraging to the formation of pus. When the pus has formed, it should be given exit with the knife as soon as recognized.

DR. THOMAS HAWKES TANNER.

The treatment of acute tonsillitis is best commenced with a saline cathartic, such as the citrate of magnesia. Externally the patient should apply hot fomentations, or linseed-meal poultices to the throat. Steam of hot water to the fauces, blistering the outside of the throat, or the application of stimulating embrocations—as the compound camphor liniment—will be useful in some obstinate cases. Guaiacum in large doses has been recommended as a specific in quinsy, but Dr. TANNER has never found it of much service.

A useful gargle is of opium and belladonna.

356. R.	Tincturæ opii,	f.ʒ ij.	
	Tincturæ belladonnæ,	f.ʒ iij.	
	Aquam camphoræ,	ad f.ʒ viij.	M.

For gargle, to be used frequently.

Cloths wet with this may also be applied to the outside of the throat.

A very useful remedy in the very early stages of the disease is a cold wet compress fastened around the throat and covered with oiled silk or flannel.

If an abscess form, it is to be opened cautiously with a sharp-pointed bistoury, the cutting edge being directed toward the mesial line of the body. It is well to have some styptic at hand, in the event of free hemorrhage, which occasionally occurs.

DR. AMES H. PEABODY, OF NEBRASKA.

This writer states that in tonsillitis of all grades, he has unvarying success from the use of *oleum terebinthinæ*. (*Medical and Surgical Reporter*, September 9th, 1876.) He commences the treatment of all cases, whether of diphtheritic or ordinary tonsillitis, by seeing that the alimentary canal is properly cleaned by the administration of Epsom or Rochelle salts, where they can be taken; if not, the granulated citrate of magnesia is palatable, and seldom objected to. He also immediately puts the patient on the following prescription:

357. R.	Ol. terebinthinæ, Pulveris potassii chlo., Pulveris sach. alb., Pulveris acaciæ, Aquæ,	ij. ij. ss. ss. v.	M.
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Shake up well, and take a large teaspoonful every hour or two, until the inflammatory symptoms begin to subside, then less often.

Always directing it to be rinsed well around in the mouth before swallowing, so that every possible portion of the inflamed mucous membrane, from the lips to the stomach, may be touched with the turpentine and chlorate of potash.

The inhalation of steam from hops and vinegar is allowed, if the patient desire, as it is soothing to the inflamed mucous membrane.

If this alone does not relieve the patient in twenty-four hours, or less in severe cases, he adds to the emulsion forty-eight grains of sulphate of quinine, so that we get the local effect, as well as the constitutional, of this potent drug. This is taken in the same way every two or three hours, alternating it with twenty drops of tinctura ferri mur., if desired. He has yet to see the first fatal case where this treatment was carried out from the outset of the disease.

DR. HANFIELD JONES, OF LONDON.

In a review of the therapeutics of this disease, (*Lancet*, January, 1871,) this writer states that *belladonna* is more appropriate where the tonsils are acutely inflamed than in those cases where there is general inflammation of the fauces, without special affection of the tonsils. In the latter case he thinks that either *iodide of potassium* or the solution of *sesqui-chloride of iron*, according to the quality and stage of the inflammation, is preferable; and though he often combines with the *belladonna* a little quinine or sulphate of magnesia, or an emetic,

according to the indications of the case, and sometimes the use of steam, or a blister applied externally to the neck, he feels justified in maintaining that the success which he has obtained in the treatment of these cases is not to be attributed so much to these auxiliary measures as to the *belladonna*. He always gives directions that the administration of the remedy shall be slackened as soon as the throat symptoms are materially relieved, or on the production of any toxic effect.

Dr. JONES does not pretend to decide whether the remedy operates by producing constriction of the arteries, or by a direct sedative effect on the elements of the affected tissue; but he proposes that, if further observation should confirm its value in acute tonsillitis, the patient should be saved the regularly recurring pain of swallowing doses of medicine, by reducing the preparation of the drug to the smallest possible bulk, or by injecting it subcutaneously in the form of atropine.

MR. LESLIE THAIN, ENGLAND.

In inflammation of the fauces, (tonsils and pharynx,) this writer says (*Lancet*, September, 1876,) he has found the usual gargles of little value, and depends upon *carbolic acid*. His plan is to apply hot fomentations, with a few drops of turpentine externally to the throat, and then to wrap up the whole neck in flannel. Constant heat, moisture and mild counter-irritation, are to be kept up by frequent changing of these applications. The feet must be at once put into a hot mustard-bath, and if the patient will then get into bed between the blankets, so much the better. Gargles as hot as can be borne must be begun as soon as possible, and the most useful is a watery solution of carbolic acid (1:40.) This has a soothing effect on the inflamed mucous membrane, besides sweetening the foul breath. If gargling cannot be performed, *carbolic acid* in glycerine (1:20, or 1:30,) should be frequently applied by means of a feather to the parts. A brisk saline aperient may be advisable.

By following this plan of treatment, Mr. THAIN declares that the inflammation subsides in a few hours, never running on to suppuration, and then a simple alum gargle may be serviceable. The advantages of the plan are: 1. The carbolic acid relieves pain, checks hawking and tickling of the throat, and sweetens the foul breath. 2. The glycerine keeps moist the dry, irritated mucous membrane. 3. The hot gargle, the fomentations, and the foot-bath rapidly relieve the active congestion.

GARGLES.

In inflammations of the fauces, tonsils and pharynx, an important medication is by the use of *gargles*.

A gargle should be used in small quantities and frequently. One or two teaspoonfuls is abundant, and it should be repeated hourly or every half hour.

Sir J. MURRAY recommends the drawing of the gargle through the nostrils. It thus passes along the posterior nares and reaches the pharynx, touching in its course the whole mucous surface. Conditions such as injected, relaxed or turgid states of the coats and vessels of the posterior passages, which cannot be reached by gargles applied in the usual manner, are removed by those drawn through the nostrils.

Gargles may be made either astringent, stimulant or sedative.

They are contra-indicated when active inflammation of the throat exists. They are purely local in their action, and are powerfully employed in chronic cases of relaxed or ulcerated tonsils and fauces.

The following selected recipes will be found of service:

PROFESSOR JOSEPH PANCOAST, M. D., PHILADELPHIA.

358. R. Cinchonæ rubri, $\frac{3}{4}$ ss. M.
Aquæ bullientis, O ss.

Strain and add:

359. R. Tincturæ myrrhæ, $\frac{3}{4}$ j. M.
Tincturæ kramerie, f. $\frac{3}{4}$ j.
Mellis despumatæ, āā
Acidi muratici diluti, gtt. xv.

Use as a gargle in cases of chronic sore throat.

DR. N. GALLOIS, PARIS.

360. R. Aluminium et potassii sulphatis, $\frac{3}{4}$ j. M.
Decocti quercus albæ, f. $\frac{3}{4}$ iv.
Vini albæ, f. $\frac{3}{4}$ ijss.

This is a useful gargle in chronic inflammatory affections of the throat attended with relaxation of the uvula.

361. R. Sodii boratis, $\frac{3}{4}$ j. M.
Extractii opii, $\frac{3}{4}$ j.
Mellis, f. $\frac{3}{4}$ j.
Infusi salviæ, f. $\frac{3}{4}$ vj.

Employ as a gargle in inflammatory sore throat.

362. R. Acidi tannici, $\frac{3}{4}$ ss.
Mellis rosæ, f. $\frac{3}{4}$ iss.
Aquæ rosæ, f. $\frac{3}{4}$ ivss. M.
Employ as a gargle in chronic sore throat.

Or employ:

363. R. Tincturæ myrrhæ, f. $\frac{3}{4}$ ij. M.
Mellis despumatæ, f. $\frac{3}{4}$ j.
Infusi rosæ, f. $\frac{3}{4}$ iv.

Used as a gargle.

DR. RENAULDIN, FRANCE.

364. R. Ammonii chloridi, $\frac{3}{4}$ j. M.
Spiritus camphoræ, f. $\frac{3}{4}$ ss.
Oxymellis, f. $\frac{3}{4}$ j.
Decocti cinchonæ rubræ, f. $\frac{3}{4}$ vij.

Employ as a gargle in gangrenous sore throat.

365. R. Acidi muriatici, gtt. xx-xxx. M.
Mellis rosæ, f. $\frac{3}{4}$ j.
Decocti cinchonæ rubræ, f. $\frac{3}{4}$ v.

Employ as a gargle in gangrenous sore throat.

Another useful local application is the following:

J. M. DA COSTA, M. D., PHILADELPHIA.

366. R. Cupri sulphatis, $\frac{3}{4}$ j. M.
Aquæ, f. $\frac{3}{4}$ j.
Apply with a brush three times a week in cases of follicular pharyngitis.

DR. C. C. SCHUYLER, OF TROY, N. Y.

This practitioner writes to the *Medical and Surgical Reporter*, 1878, that in acute tonsillitis he has never failed to abort the disease when seen in the initial stage—that of chill, fever and accelerated pulse. Even when it has existed for forty-eight hours it has been cut short.

The treatment, which is simple, is as follows: a brisk saline cathartic is immediately ordered, and the following mixture is applied to the tonsil with a camel's-hair pencil, once in two or three hours:

367. R. Tinct. iodinii, āā f. $\frac{3}{4}$ ij. M.
Tinct. ferri chloridi, f. $\frac{3}{4}$ ss.
Glycerinæ, f. $\frac{3}{4}$ ss.

Even in persons subject to periodical attacks, it has been eminently successful.

RÉSUMÉ OF REMEDIES.

Aconitum. Dr. SYDNEY RINGER says the visible effects of aconite on inflamed tonsils, etc., are conspicuous. It should be given at the very beginning of the disease. Half a drop or a drop of the tincture in a teaspoonful of water, every ten minutes or a quarter of an hour for two hours, and afterwards hourly.

Alumen is a popular ingredient in gargles. (F. 286.)

Ammonii Hypophosphis.

368. R. Ammonii hypophosphitis, $\zeta j.$
Syrupi tolutani, $f. \zeta viij.$
Glycerinæ, $\bar{a}\bar{a}$ $f. \zeta iv.$ M.
Aque,

To the water and glycerine add the hypophosphite of ammonia, and agitate until dissolved. Then add the syrup tolu and one ounce of freshly powdered *cubebæ*, and agitate well before each dose. Ordinary dose, one teaspoonful every one or two hours.

A writer in the *Pacific Medical and Surgical Journal* says: "We have found this preparation to be a very superior remedy for coughs, colds and hoarseness. Its use in small and oft-repeated doses is very beneficial for preachers, singers, and other public speakers, to clear the voice, taken for several hours before they appear in public."

Antimonii et Potassii Tartras, in doses of gr. $\frac{1}{4}$ – $\frac{1}{2}$ hourly, is valuable to combat the inflammatory stage of acute tonsillitis.

Arsenicum has been recommended in the sloughing of sore throat.

Belladonna. Tincture of belladonna, gtt. ij–xv every two hours until the patient is relieved, or until its constitutional signs are produced, has been highly commended. It may also be used externally to the throat as a lotion. (See page 284.)

Capsicum is an excellent gargle in the early stages of inflamed sore throat, and also in relaxed throat.

369. R. Tincturæ capsici, $f. \zeta j.$
Aque, $O ss.$ M.
For a gargle.

The officinal infusion (ζss of the powder to a pint of water) is also used as a gargle.

Catechu. A small piece of gum catechu placed in the mouth and allowed slowly to dissolve, the saliva being swallowed, is a convenient and agreeable remedy in relaxed uvula, irritable fauces and enlarged tonsils.

Cimicifuga, gtt. v–x of the tincture, in the early stages of sore throat, is said to act well. Also where the mucous membrane of the pharynx becomes dry and spotted over with inspissated mucus. (RINGER.)

Cinchona.—Peruvian bark and its alkaloids exert a specific effect when locally applied to inflamed mucous membranes. They are invaluable additions to gargles.

(F. 358.) An attack of acute tonsillitis may sometimes be aborted by a full dose of quinine (gr. x–xv) given at the outset. Dr. GEORGE JOHNSON, of London, recommends the following gargle:

370. R. Quiniae sulphatis, $gr. xvij.$
Acidi sulphurici diluti, $\mathfrak{m} xlj.$
Aque, $f. \zeta vj.$ M.
For a gargle.

Creosotum is an excellent ingredient in gargles for malignant sore throat.

Cubeba. This has received very high praise from MM. TRIDEAU, BERGEROU, TROUSSEU, and other French surgeons, and by Dr. BEVERLY ROBINSON, of New York, as a remedy in simple membranous and in diphtheritic sore throat. The mixture employed by the latter most frequently is the following:

371. R. Pulv. cubebæ, (freshly powdered), $\zeta j.$
Syrupi aurantii, $\bar{a}\bar{a}$ $\zeta iss.$ M.
Aq. menth. pip.,

To be taken in twenty-four hours, or a dessertspoonful every two hours.

This is the usual adult dose. From a fourth to a half of the above quantity may be given with propriety in the same lapse of time, to a child three years of age. He lays great stress upon the importance of making use of the *freshly-ground powder*. No other preparation of cubeb is at all so efficacious. Of its action he says: Cubeb tends to arrest mucous secretions, and, on this account, membranous exudation does not re-form as rapidly or abundantly. False membranes already formed lose their intimate adherence with the original site of growth, and are resorbed, or fall into the buccal cavity and are expectorated. They also shrivel to a limited degree, and are less covered with liquid secretions. When the pseudo deposit re-appears in the spot from which it has once dropped, or been resorbed, it differs considerably from the primitive one. It is changed in color, configuration, and other properties. It is white, or of a white slightly bluish tinge, less thick and prominent, less adherent, and covers a more limited area. It has lost its disposition to extend to new surfaces, whether it be toward the larynx or toward the nasal cavities. The above effects manifest themselves usually in about forty-eight hours from the time the exhibition of cubeb is commenced. Sometimes they are evident before the expiration of this period; occasionally three or four days may elapse before apparent results are obtained.

Glycerina, especially in combination with tannin, is frequently of much use in the later stages of sore throat, applied with a pencil, or with water as a gargle.

Guaiacum is one of the most specific and important remedies in inflamed sore throat. The following is a most satisfactory formula:

372. R. Tincturæ guaiaci ammoniatæ, $\bar{a}\bar{a}$ $f. \zeta iij.$
Liquoris potassæ, $f. \zeta ij.$
Tincturæ opii, $ad f. \zeta viij.$
Aquam cinnamomi, M.
For a gargle. A teaspoonful every hour.

Mr. JOSEPH BELL strongly recommends the internal administration of powdered guaiacum—half a drachm suspended by means of mucilage, in a draught, every six hours, in large doses—as being almost specific in the cure of cynanche tonsillaris. Dr. R. J. FRITZINGER, of Pennsylvania, has found the following an almost certain preventive of ulceration in tonsillitis:

373. R. Potassii chloratis, ℥i.
Spiritus ætheris nitrosi, f. ʒ ss.
Tincturæ guaiaci, f. ʒ iss. M.

A teaspoonful every three hours in sweetened water. (*Medical and Surgical Reporter*, November, 1874.)

Hydrargyrum. Dr. RINGER says that in acute tonsillitis, when the tonsils almost meet, gr. ʒ of hydrarg. powder, every hour, is beneficial, even if an abscess has formed.

Ice, constantly sucked, a small piece being kept in the mouth, is a valued alleviant.

Iodinium. The tincture of iodine is occasionally applied to the sores left by faucial inflammation and as an absorbent.

Potassii Chloras is a frequent ingredient in gargles for the throat. (F. 353.) It may be combined with carbolic acid:

374. R. Potassii chloratis, ℥ij.
Acidi carbolic, f. ʒ ss.
Aquæ cinnamomi, f. ʒ viij. M.

For a lotion or gargle.

Potassii Nitras was formerly a common application to inflamed throat, but is now largely supplanted by the chlorate.

Quinix Sulphatis. See Cinchona.

Rhus Glabrum. Dr. H. C. WOOD, JR., states that the most generally efficient gargle in ordinary sore throat he has ever met with is the following

375. R. Pulv. rhus glabri, ℥ij.
Potassii chloratis, f. ʒ ss.
Aquæ bullientis, Oj. M.

Simmer in an earthen vessel, occasionally stirring, to three-fourths of a pint; strain, and use as a gargle.

The sumac berries contain considerable bimalate of calcium, the malic acid in which seems to give them an especially beneficial influence on inflamed mucous membranes.

Tannicum Acidum, must be used for its astringent qualities.

Terebinthinæ Oleum. In the *Leavenworth Medical Herald*, 1876, Dr. S. H. ROBERTS strongly recommends the use of turpentine externally in tonsillitis. He folds the flannel to four thicknesses, wrings it out in hot water, and pours oil of turpentine over a spot the size of a silver dollar. The flannel is then applied over the sub-pa. otid region, and the fomentation continued as long as it can be borne. After removal, a dry flannel is applied, and the same

region rubbed with turpentine every two hours. This application is continued daily till resolution occurs. The doctor believes, from the evidence of his long experience, that thus applied early in the disease the oil of turpentine has almost a specific effect in tonsillitis. That its action is not simply that of an irritant he has proved by employing mustard, croton oil, tr. iodine, etc., in the same class of cases. They always failed to diminish the inflammation of tonsils, while the turpentine succeeded. (See also F. 357.)

Xanthoxylum.—A decoction of prickly ash bark is an efficient gargle in chronic pharyngitis with dryness of the mucous membrane. In similar cases also the fluid extract, ℥x-xxx, or the tincture f. ʒ ss-j, is a successful remedy.

TONSILLAR HYPERTROPHY.

JAMES E. GARRETSON M. D. D. D. S.

Tonsillar hypertrophy is rather a systemic indication than a local disease. More attention will be found required to diet, clothing, exercise, and general mode of life, than to medication.

Among medicine said to possess specific power on enlarged tonsils, *sulphate of potassium* holds the most prominent position. It is to be given for four or six weeks, in doses of gr. v-xv. It is usual to combine it with rhubarb and some of the aromatics to insure laxity of the bowels. It is, without doubt, efficient in many cases.

Where the arthritic dyscrasia can be detected, *colchicum* has been highly commended for enlarged tonsils. It should be taken internally and applied externally as a liniment, in combination with linimentum saponis.

Another frequently successful remedy, particularly applicable where the condition is coincident with scarlatina, is *acetate of zinc*.

376. R. Zinci acetatis, ℥j.
Glycerinæ, f. ʒ ss.
Aquæ, f. ʒ viij. M.

A teaspoonful every four hours, or oftener.

The local treatment is either by the use of alteratives, by cauterization or by amputation. As an alterative, the *iodide of zinc* holds, perhaps, the most prominent position. It is used in solution, gr. x-xxx,

applied with a brush two or three times in the twenty-four hours; or, as the treatment advances, it may be applied pure, as it deliquesces when exposed to the air.

The second mode of treatment is by cauterization, as recommended by Dr. RUPPNER. (See below.) Dr. RUMBOLD, of St. Louis, claims to have treated successfully a number of cases of enlarged tonsils by injecting the glands, by means of a hypodermic syringe, with this solution of iodine:

377. R.	Iodini, Potassii iodidi Aque,	gr. ij. ʒ ij. ℥ ʒj.	M.
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Generally, a slight inflammation followed the injection, but it soon subsided. From twelve to seventeen injections—ordinarily two a week—were sufficient to reduce the gland to its normal condition.

Finally, amputation may be resorted to.

Professor JAMES SYME recommends that in removing the tonsil, it should be seized with a hook, drawn forward, and excised with the scalpel. This method, recommended by CÆLUS, is, in Mr. SYME'S opinion, less liable to be followed by hemorrhage than any of the plans later devised.

In removing the tonsil with the guillotine, it is important to remember that the organs are situated obliquely, like the pillars of the soft palate; more pressure should be made upon the lower than on the upper border of the instrument, and the tonsil will then be readily seized. It is better not to attempt to remove the whole of the organ, for after removing a portion, the rest will atrophy, and removal of the whole is liable to be followed by dangerous and very obstinate hemorrhage. The hemorrhage may be due to the existence of inflammation at the time of operating, which inflammation also has a tendency to make the substance of the organ friable, so that it will have to be removed in small pieces; hence it is always advisable to defer the operation until the inflammatory stage has passed.

All the usual methods of checking the bleeding are unreliable, with the exception of direct compression made by the finger of the surgeon. The finger should be introduced into the mouth and applied directly to the wound, while counter-pressure is made from in front. This position must be maintained for several minutes, notwithstanding the attacks of suffocation, the efforts at vomiting, and the cough which

the method excites. The hemorrhage is generally arrested at the end of two minutes.

ANTOINE RUPPNER, M. D., OF NEW YORK.

This practitioner prefers in chronic tonsillar enlargement to use the *London* paste, recommended by Dr. MORRELL MACKENZIE. He states that it should be prepared in the following manner:

A quantity of equal parts of finely-pulverized and mixed *caustic soda* and *unslacked lime* is kept on hand. When an application is to be made to the tonsils, a little of the powder is put into a small porcelain cup, and a few drops of absolute alcohol, which is kept near at hand, are added; the two are carefully mixed with a glass rod, when the paste is ready for use. Care must, however, be taken that it be of the proper consistency. If too thin, it is apt to find its way to parts which ought not to be touched; if too thick or lumpy, the paste will not readily stick, and little pieces might be swallowed. To apply the paste, a glass rod of sufficient length ought to be used. One end of it, which must be smooth and slightly funnel-shaped, is dropped into the paste, and a greater or lesser portion of the surface touched, as occasion may require.

To apply the paste the patient should be placed in the position for laryngoscopy. The tongue is then to be depressed with the spatula, and the paste applied to the enlarged surface for two or three seconds. The action of the escharotic upon the tonsil is rapid. The mucous membrane almost instantly assumes a deep flesh color, and presently a dark, blackish spot is seen streaked with blood. The following day the tonsil is covered with a whitish-yellow eschar.

The inconsiderable amount of suffering produced by this application is noticeable. Children hardly pay any attention to the pain, or make light of it. At the longest, the discomfort lasts only about two or three minutes. Subsequent applications are accompanied with less, if any pain at all.

The operation is again to be repeated in two or three days. The number of applications will depend upon the nature of the case.

ARTHUR TREHERNE NORTON, F. R. C. S.*

When the tonsils of children are enlarged, it is necessary to treat them constitutionally as well as locally. The parts should be painted with a solution of equal parts of tincture of iodine and water, or with the pure tincture, ceasing the application for a day or two at a time, rather than to allow the surface to become abraded by the irritant action of the drug. The child should be taught to gargle, and the application then exchanged for a gargle of tannic acid (gr. viij. to $\bar{3}$ j.) or of tincture of iodine ($\bar{3}$ ss to $\bar{3}$ j.) If the child is strumous, iodide of iron and cod-liver oil are called for; and if there are any signs of inherited syphilis, iodide of potassium, gr. ij three times a day, accompanied by small and repeated doses of gray powder, will be called for. If after two months of this treatment there is no appreciable result, the condition may be looked upon as incurable, and a resort to an operation is the only alternative.

In people over twenty years of age, by far the majority of cases of hypertrophied tonsils are due to *syphilis*. The tonsils are purple or dark blue, rather soft, not painful, very liable to ulcerate. The pillars of the fauces are thick and fleshy. Mr. NORTON usually prescribes:

378. R.	Potassii iodidi,	gr. v.	
	Liq. hydrarg. perchloridi,	$\bar{3}$ iss.	
	Decocti cinchonæ,	$\bar{3}$ j.	M.

At a dose, thrice daily.

After giving this for two or three weeks he changes it to tinctura ferri chloridi, or to the citrate of iron and quinine, alternating the two classes of remedies from time to time. If there are the slightest symptoms of salivation, he ceases the mercury at once. As a gargle he gives:

379. R.	Hydrargyri perchloridi,	gr. ij.	
	Aquæ,	$\bar{3}$ viij.	M.

Use night and morning, or thrice daily.

This is changed from time to time for:

380. R.	Zinci chloridi,	gr. xvj.	
	Aquæ,	$\bar{3}$ viij.	M.

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Or he applies locally a solution of nitrate of silver, gr. iij. to f. $\bar{3}$ j. This treatment is in the highest degree satisfactory. In this form of enlargement the tonsils should never be removed.

Parenchymatous injections of *ergotin* have been used, with moderate success.

Fel bovinum, (ox-gall,) applied locally, is said to have a remarkably prompt effect in dissipating tonsillar enlargements.

HERNIA.

The therapeutics of hernia is confined to those measures which are auxiliaries to the taxis, and those by which an operative procedure may be avoided. They may be considered under the following headings:

Anæsthetics.—These are considered indispensable as relaxants in preparing for the taxis. Chloroform is generally preferred. It should be given to the extent of complete obliviousness.

Aspiration.—Several French and some English surgeons very earnestly advocate the employment of aspiration in all cases of irreducible strangulated hernia. It is quite safe, whereas the ordinary operation shows a mortality of from 25 to 45 per cent. With such facts as these before us, it becomes a very serious question indeed, whether any surgeon is warranted as a rule in performing the old operation for hernia, before having tried the simpler and safer plan of aspiration. The one, if not sufficient, does not preclude the use of the other. The safety with which the aspirator can be used would encourage us to resort to early operative interference of this simple nature, while we might shrink from the responsibility of using means of a far more risky character.

The advocates of aspiration in hernia do not pretend that it is of universal applicability. Its use will not tend to the reduction of a strangulated epiplocele, but can we always be certain with what we are dealing in such circumstances? Better give the patient the benefit of the doubt, and then operate in the usual manner if there is no reduction. Neither will it suffice *per se* to reduce herniæ compli-