

Guaiacol may be detected in the urine half an hour after its ingestion. The drug is given in the form of powder, cachet, or pill, in doses of 5 to 15 grains three to six times daily.

3. Benzosal.—Benzoyl guaiacol is tasteless and odourless. In the digestive tract it is split up into guaiacol and benzoic acid. Four grains may be given three to six times daily.

Of the above Bannatyne considers guaiacol carbonate the best and most reliable drug, and he has seen remarkable improvement follow its use. The only contra-indication is the presence of nephritis. As an external application he employs a mixture of pure guaiacol and olive oil in various proportions, but usually in equal parts, and has found it efficient for the relief of pain. The odour may be masked by oil of cloves.

INFECTIOUS FEVERS.

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1. Treatment of typhoid fever by asaprol.

Asaprol is naphthol monosulphate of calcium. It is highly recommended by Dr. Clement Ferreira (*Bulletin Général de Thérap.*, Oct. 23, 1898). He gives 30 to 45 grains daily. It cleans the tongue, and lessens tympanites and diarrhoea. The substance is an antiseptic, but Dr. Ferreira recommends its use partly because it exercises an agglutinating action on the bacilli of cultures, and therefore possibly exercises a beneficial influence on the malady.

2. Compound tincture of benzoin in typhoid fever.

Dr. J. C. Potter (*Brit. Med. Journ.*, Nov. 27, 1897), recommends minims v. of this tincture every two hours in typhoid fever; after twenty-four hours diarrhoea decreases and the temperature falls. If diarrhoea is not controlled, the dose should be doubled.

3. Treatment of typhoid fever by salol.

Dr. Bramwell (*Brit. Med. Journ.*, vol. ii., 1897, p. 1214) advocates the use of salol in the powdered form, not in tabloids, in doses of 5 to 10 grains (according to age) every four hours until the urine is tinged, when the dose is diminished, giving only sufficient to maintain the faint coloration of the urine. During the first few days of the treatment cold packs and sponging are usually required in severe cases. Dr. Bramwell believes that in several mild cases the disease has been aborted by salol, and cases of greater severity have passed through a mild and uncomplicated course under salol treatment. Dr. Bramwell bases his statements on ten years' use of the drug.

[In the "Year-Book" for 1893 (p. 175) salol was advocated by Mr. Howard Fussel in *Bulletin de Thérap.*, July 8, 1892, and it no doubt is a useful intestinal antiseptic, but there is no proof that abortion of the disease can be attributed to it.—S. P.]

4. Olive oil in typhoid fever.

Dr. O. F. Paget (*Lancet*, vol. ii., 1897, p. 1383) writes that while in Fremantle, Western Australia, over 100 cases of typhoid fever came under his care, and no patient died. He attributes this, in

great part, to his plan of giving 5 to 10 ounces of salad oil as an enema at intervals of twelve to twenty-four hours during the first four or five days. Its benefits are distinct from the first; the temperature almost always falls 1° F., and the patient's restlessness ceases. After the fifth day the enemata may be discontinued, or given every second day. He writes that, "There is a certain proportion of cases which do not respond to injections; nothing comes away, and the bowel is apparently empty; but it is in these very cases that the accumulation is worst: suddenly the temperature runs up, and the patient is seriously ill. Now, it is the very virulence of the accumulation which paralyses the gut, and prevents the accumulation coming away. The remedy is simple: give salad oil by the mouth, a large breakfast cup at a time" . . . "the bowels will almost certainly respond, and the injections are now able to manage the rest. If the first dose is without effect, repeat after twelve hours."

5. Treatment of typhoid fever by carbolic acid.

Brigade Surgeon Lieut.-Colonel Quill (*Brit. Med. Journ.*, May, 1898), recommends the internal administration of the following mixture: Acid. carbolic. purissim., mxxxvj (Calvert's No. 1); tinct. chloroformi, Co ʒii; tinct. cardamomi, Co ʒii; syrup. aurant., ʒj; aq. chlorof. ad. ʒxii. One ounce, with an equal quantity of iced water, to be taken every second or third hour, immediately after food. "In mild cases of enteric fever five or six doses of the above mixture are given in the twenty-four hours, while in severe cases ten doses are given. It is advisable to continue its use in from three to five doses daily for at least a week after the temperature has fallen to normal."

6. Treatment of typhoid fever.

Dr. Sidney Phillips (*Brit. Med. Journ.*, Nov., 1898) calls attention to the alteration in type in typhoid fever in England of late years. The intestinal ulceration is much less frequent and less severe than formerly, and with this change is a corresponding decrease in the severity of the abdominal symptoms; diarrhoea, hæmorrhage, excessive tympanites being all less frequent than heretofore. Nevertheless, the mortality is not much diminished, but the deaths occur more from general causes—toxæmia, asthenia—than from local abdominal lesions. In cases where the intestinal symptoms, and, presumably, the intestinal ulceration have never been severe, solid food may be commenced tentatively earlier than in other cases, but with care, as occasionally a deep ulcer may exist with few indications of its presence. For hæmorrhage no drug is so efficacious as tincture of hamamelis. The ice-bag, if used, should not be kept on for days after melæna has ceased, as

it tends to freeze up the abdominal wall and impair the vitality of subjacent viscera. Diarrhoea is an accompaniment, as statistics show, of the most severe cases, and should be checked from the first, preferably by enemata.

Many deaths occur from bloodlessness, resulting from the drain from diarrhoea and fever, and from the specific affection of the spleen and other blood-making organs, as well as from the impeded absorption of nutriment due to the swelling of mesenteric and retro-peritoneal glands. It is essential to feed up the patient as much as possible (regard being had to the digestive powers of the individual patient) as soon as convalescence commences. Intravenous saline injections often give improvement, but in most cases it is temporary only.

7. Treatment of scarlatinal nephritis.

Dr. F. Detlefsen, of Chicago (*Pediatrics*, Jan. 15, 1898, p. 47) writes that the first requirement is absolute rest in bed, in a well-aired room, between 70° and 75° F. Diaphoresis should be moderate, and followed by the ingestion of plentiful fluids, for a favourable excretion by means of the sweat glands is not void of danger, because the loss of fluid is too great in comparison to the amount of excreted urea. The diaphoretic preferred is a warm bath of 98° to 100° F. for 15 or 20 minutes, or less. During the bathing cold compresses are applied to the head, and the child is afterwards put into bed in a warm blanket. If perspiration is not free, hot drinks or an infusion of jaborandi, or pilocarpine, may be given, though the latter is very depressing. Baths as hot as 95° to 106°, as recommended by Liebermeister, may lead to collapse. If warm baths are not well borne, the child may be wrapped in a sheet wrung out of hot water. Poultices over the renal region are useful. Laxatives are useful. An absolutely milk diet is too rich in nitrogen, and gruel or soups of barley and other farinacea and cooked fruits may be given. Dr. Detlefsen declaims against the use of diuretics as irritating, but gives pure spring water or mineral water, such as Vichy. Digitalis has probably no direct effect on the kidneys, and he much prefers tincture of strophanthus.

[The temperature of the room, 70° to 75°, appears 10° F. too high. Digitalis, in my experience, is often of much use as a diuretic, and citrate of potash has never given indications of injurious irritation. Leeches over the renal region in an acute attack are very useful.—S. P.]

8. The hot acid bath in scarlet fever.

The Medical Officer of Health for Leicester, Dr. Munk (*Brit. Med. Journ.*, vol. ii., 1897, p. 1435), gave this treatment a trial

at the Borough Fever Hospital of that town. The acid bath treatment consists in bathing the scarlatinal patient in water at 102° F., containing half an ounce of commercial sulphuric acid to every 10 gallons of water. The patient is kept in this bath and sponged for about 20 minutes, and then enveloped in flannel in bed. Usually he perspires freely and is then sponged with tepid water every 3 or 4 hours, as long as the temperature remains above normal. Dr. Munk concludes that the statement made that under this treatment there is no desquamation is not correct, but that there is considerable improvement in the mode and rapidity of shedding the dead epithelial scales. There does not appear, however, to be any ground for believing the infectivity of the case is shortened in duration, for 3·6 of the cases were followed by "return" cases, and there is no convincing evidence that the mortality was lessened compared with the mortality of patients of the same age treated in other ways.

9. Treatment of diphtheria by tincture of myrrh.

Ströhl (*Allgemeine medicin. centr. Zeitung*) recommends tincture of myrrh 4 parts, glycerine 8 parts, and distilled water to 200 parts, given internally every hour in the day and every two hours at night. This is continued until the membrane nearly disappears, when its frequency is gradually reduced: fever and lassitude disappear in twenty-four hours. Where the larynx is involved, the mixture is prescribed in an inhaler or spray.

10. Intravenous injections of mercuric chloride in diphtheria.

W. J. Pyle (*Med. News*, July 18, and *Epit., Brit. Med. Journ.*, 1897), recommends injecting into the veins of the arm repeatedly a fluid composed as follows: Mercuric chloride, gr. xv.; sodium chloride, gr. xlvi.; water, ℥xxiv.: 15 minims of this solution is at first used, and the dose is raised gradually to 60 minims. This treatment is similar to that of Baccelli for syphilis, but Pyle gives no experience of his own as to its success in diphtheria.

11. Treatment of diphtheria by chlorine.

Dr. Bracelin (*New York Med. Journ.*, March 5, 1898) writes: "Chlorine has been found one of the most useful remedies for diphtheria. Solutions of chlorine cannot be made powerful enough to obtain the full effects of the remedy, and the vapour could not be inhaled except in minute doses, as it excites cough and a sense of suffocation." Dr. Bracelin, after numerous experiments, claims to have succeeded in discovering a combination which does not lessen the antiseptic properties of chlorine, yet completely corrects its irritating qualities. Being used by inhalation, the

remedy has a general as well as a local effect, as the vapour enters the lungs and "assists nature to destroy the systemic poison." The formula of chlorine bactericide is as follows:—

SOLUTION I.

| | | | | | |
|------------------------------|-----|-----|-----|-----|----------|
| Solution of zinc chloride | ... | ... | ... | ... | 20 parts |
| Solution of arsenic chloride | ... | ... | ... | ... | 30 " |
| Hydrochloric acid pure | ... | ... | ... | ... | 1 " |
| Water | ... | ... | ... | ... | 40 " |

M.

SOLUTION II.

| | | | | | |
|---|-----|-----|-----|-----|----------|
| Solution chlorinated soda, standardised to 2·6 per cent. available chlorine | ... | ... | ... | ... | 70 parts |
| "Corrective" | ... | ... | ... | ... | 30 " |

The corrective consists of menthol, camphor, eucalyptus, and salicylate of methyl dissolved in alcohol and water.

Dr. Bracelin (*New York Med. Journ.*, Nov. 19, 1898) cannot at present publish exact directions for the preparation of this corrective, but has placed the directions in the hands of the New York Board of Health.

Directions: Five teaspoonfuls of No. 1 and one teaspoonful of No. 2 are put into the inhaler and inhaled four or five minutes at a time, once an hour, in diphtheria. One teaspoonful of No. 2 should be added every four hours. Every twelve hours the inhaler is emptied and refilled. The inhaler should be slightly warmed before using.

12. Creosoted oil in diphtheria.

In the *Canada Lancet* (Feb., 1898, p. 297), Dr. Macfarlane and Dr. Ewart record a case of a child, of two and a half years old, with laryngeal diphtheria, on whom tracheotomy was performed within twenty-four hours of the onset, and antitoxin injected. Creosoted oil (1 in 20) was ordered to be dropped into the tracheotomy tube, but, by mistake, olive oil was used instead, without any relief. After a time, however, membrane was coughed up; four days later, creosoted oil was substituted for the olive oil, a large drop of the oil being introduced through the tube every half-hour. After this the child improved and recovered.

Dr. Ewart believes the creosoted oil led to the coughing and bringing up of much membrane, which the olive oil had failed to do.