

THE CHEMICAL INCOMPATIBILITY OF ANTISEPTIC AGENTS.

By PERCY BOULTON, M.D., M.R.C.P. LOND.,
PHYSICIAN TO THE SAMARITAN FREE HOSPITAL.

THE question of the utility of antiseptic agents is one of exceeding interest, so much so that the medical press teems with papers on the subject, and one of the latest of these appeared in the *British Medical Journal* on April 28th, 1888, by Dr. Boxall. In July, 1867, I wrote to THE LANCET that I had found that iodine in solution was bleached by carbolic acid. This was not then known, and I considered it likely to be valuable, as the carbolised iodine was available for many purposes where iodine was inadmissible owing to its staining properties. I have used this combination ever since, and iodised phenol frequently for intra-uterine medication; and it is rather startling, after twenty years' experience and most excellent results, to be told by Dr. Boxall that the substances are incompatible and probably inert. Perchloride of mercury is not an elementary substance, but is usually obtained by the action of common salt on sulphate of red oxide of mercury. The union of carbolic acid and iodine forms a colourless salt, which is soluble in water, and which is, I believe, an active but perfectly safe antiseptic. Mr. E. Owen has employed it, and speaks favourably of it in his "Surgical Diseases of Children" as an antiseptic lotion in abscess connected with diseased vertebræ, and also in a more recent paper on psoas abscess. Mr. Walsham has lately reported its use for washing out the peritoneal cavity. I have employed decolourised iodine repeatedly for washing out large parametric abscesses, always with good results; and I use it both for vaginal and intra-uterine douching in midwifery practice, in the following proportions: liq. iodi, 2 dr.; sol. acidi carbolici (1 in 20), 2 oz.; aquæ ferventis ad 20 oz. The iodine is added to the hot water and makes a strong mahogany-coloured solution. When the carbolic solution is added it speedily becomes as clear as drinking water. No doubt a chemical change takes place, for the air of the room and the clothes of those in it are impregnated with an iodine-like odour, which in midwifery practice I consider one of its most valuable properties. I think that a portion of the free iodine is vapourised, not fixed, as Dr. Boxall suggests, and that the solution contains what for convenience may be called carbolate of iodine. The change takes place equally well in a closely stoppered bottle, so that it is pretty certain that the iodine is not entirely lost. Dr. Apjohn, Professor of Chemistry in Trinity College, Dublin, made an analysis in 1870, and reported that the solution contained a considerable quantity of iodine in combination with carbolic acid; moreover, the sense of smell and taste will convince anyone that the solution contains these and is potent. Be this as it may, the resulting compound is, I am sure, anything but inert. I believe that it is better than either iodine or carbolic acid, having the advantages of both and the disadvantages of neither.

I suppose that none will deny that sublimate solutions have caused many deaths and a good deal of mercurialism of a severe type, with such symptoms as diarrhœa, dysentery, albuminuria, hæmaturia, salivation, &c. In one maternity hospital in London, of 170 cases fourteen suffered from hydrargyriusmus and one died, and I have myself twice seen ugly symptoms following the use of perchloride solutions. Even the strongest advocates of sublimate would not use it post partum repeatedly in the same case, nor in other conditions if the fluid was liable to be retained, and this fact is equivalent to acknowledging that it is a remedy to be used only occasionally with caution and under strict supervision. It is a little too potent for general use. Sanger has proved by experiments on animals that corrosive sublimate is the most dangerous of antiseptics, causing glomerulo-nephritis; and he advises surgeons to avoid using antiseptics in operations on the thorax or abdomen, and suggests the use of a solution of common salt. In my opinion the carbolic iodine solution is by far the best general antiseptic in the lying-in chamber.

I cordially agree with Dr. Boxall, and join with him in saying, "Let the chemists tell us the nature of the bodies produced, and let the germiculturists determine their anti-

septic value"; but it is well to remember that the human body and a test tube are not the same thing. The late Hughes Bennett showed by laboratory experiments that calomel did not act on the liver, but few practitioners would endorse this, nor do I admit that twenty years' experience counts for nothing as against any new theory of incompatibilities. My notion of incompatible substances is that they either precipitate each other or form poisonous or inert compounds. The mixture of carbolic acid with iodine does none of these things. While on this subject, I may add that I know no greasy preparation which is at the same time so efficacious and so harmless as this: iodoform, 1 dr.; ol. eucalyptus, 1 dr.; vaseline, 1 oz. It may be a mixture of incompatibilities, but I have learnt to trust it in a manner which has given me much peace of mind and satisfaction. Whenever it is necessary to plug the vagina, it is only required to smear the tampons with this to be certain that they will remain absolutely sweet for twenty-four hours. This is an experiment which does not require an expert.

Seymour-street, W.

CASE OF
CHRONIC GASTRITIS WITH DILATATION.

TREATED BY INDUCING A POULTICE RASH ON THE
EPIGASTRIUM; CURE.¹

By J. G. G. CORKHILL, M.B. VICT.,
RESIDENT PHYSICIAN SMEDLEY'S HYDROPATHIC ESTABLISHMENT,
MATLOCK.

THIS case belongs to a class of cases which, from the difficulty of diagnosis and the obstinate resistance to most of, if not all, the ordinary methods of treatment, is a source of great anxiety and perplexity to the physician, for, in spite of all his best efforts and skill, the patient goes on from bad to worse, until, worn out by care and exhausted for want of nourishment, he is frequently only relieved by the friendly arrival of death. From the symptoms detailed below it may be surmised that the gastric dilatation was caused by the blocking of the pyloric orifice by the inflamed and swollen gastric mucous membrane, which in turn arose from injudicious feeding, imperfect mastication, and irregularity of his habits. The treatment employed in this case is by no means new, but it is still unknown, or only imperfectly known, to the great majority of the profession. No medicine was administered throughout the whole course of treatment. Bread poultices were applied to the epigastrium, and in forty-eight hours a rash began to develop presenting all the characters of miliaria; a day or two later it resembled eczema impetiginodes, and from its surface a purulent, foul-smelling discharge, having a very acid reaction, began to flow. In effect the applications remained the same throughout the whole course of treatment, though in the morning and evening the appliances were renewed, whilst the parts were thoroughly cleansed each time, yet the discharge became thin and serous, and less and less offensive, until at last the rash dried up and disappeared, leaving the patient quite free from all trace of his former dyspepsia. It is evident that something other than a mere local dermatitis was effected by the action of the poultices, for without other applications save those to the epigastrium there frequently develops, as in this case, a general rash over the whole surface of the body, which may vary in intensity from simple erythematous to bullous or even carbuncular inflammation, and which disappears only when the original rash has exhausted itself.

Mr. J. W—, aged forty-eight years, came under observation on April 19th, 1888, complaining of great pain in the epigastrium, with feeling of distension, much flatulence and acidity, and the rising of fumes from the stomach having a very fetid odour, besides very frequent vomiting of very large quantities of acrid liquid of a frothy nature. Most members of his family are, or have been, troubled with affections of the liver; no cancerous history. The man is a spinner, and has a good deal of outside exercise. He was frequently much hurried over his mid-day meal, and almost always bolted his food. He partook moderately of alcohol until five years ago, since which time he had been a total abstainer. For the past six or seven years he had

¹ For the notes of this case I am partly indebted to my colleague, Dr. Hunter.