

and lactation; but which, being now turned from these physiological processes, takes a pathological direction, and runs into disease. Thus, then, local depletion is of still more importance as a palliative and preventive of uterine and other diseases of this period, than as a means of removing more remote symptoms. In treating diseases of the reproductive organs, the special reproductive power inherent in these organs, and manifested even in their diseases, should never be lost sight of.

The local application of cold is an important auxiliary to depletion, at the female climacteric. Cold hip-baths, or douche baths to the loins, cold water injections into the rectum, the injection of cold water, or iced water, or the introduction of small pieces of ice, into the vagina, are the modes in which cold can best be applied. Injections of any other kind than of simple or iced water, generally produce irritation at this period; and sometimes the vagina is so irritable, that even cold water will not be borne. In cases where occasional returns of the catamenia assume a hæmorrhagic or dysmenorrhagic form, warm and anodyne injections, both into the rectum and vagina, are useful, acting as internal fomentations. Warm water and laudanum, or the infusion of poppy-heads with laudanum added, allay uterine pain and excitement. When menorrhagia with relaxation is the prevailing symptom, strong alum baths,* in the intervals between the menstrual discharges, tend to repress the profuse uterine secretion, and to remove the relaxation of the uterine and vaginal tissues.

Care must be taken to avoid rectal irritation, as any excitement of the lower bowel is sure to be participated in by the uterus. The bowels should be kept in a lax state by cooling aperients, or enemata; but drastics, and particularly aloes, should be avoided. The habitual use of aloes, either as a purgative or dinner pill, has seemed to me to increase the uterine disturbance of the change of life, when this period arrives. The management of the bowels at this time is often a difficult matter, as the lower bowel participates in the uterine habit, and is at one time irritable and at another confined. To give aloes as an aperient at this period is mischievous; it is still worse to give it as an emmenagogue. All emmenagogue remedies are as distinctly contra-indicated at this epoch as during pregnancy. They are certain to produce mischief. But although the uterine secretion is not to be stimulated, the other important secretions,—hepatic, renal, alvine, and cutaneous,—ought all to be carefully regulated and kept in full play, to compensate for the important secretion which is about to become extinguished.

III. THE GENERAL HYPERÆSTHESIA.—The hyperæsthesia and the peculiar æsthetic paroxysms, to the study of which it has been my main object to draw attention, without doubt depend upon the erethism or excitability of the nervous system, induced by the irritable condition of the uterine organs, and upon the partial suppression of the catamenial secretion. All the treatment which has been mentioned contributes to the relief of the hyperæsthetic symptoms. I would, however, insist on the importance of regulating the diet of patients undergoing the catamenial change. From the tendency to plethora and *embonpoint* at this period, a light, nutritious, but not full diet, with little wine, and no malt liquors, should be prescribed. Owing to the distressing sensations common to this time, small quantities of spirits are sometimes ordered, and are always gladly taken by patients. There is often a diseased craving for stimulants at this time, which, in several instances, I have seen pass into a decided habit of spirit drinking. Spirits ought only to be allowed with the greatest caution at this time of the constitution, as their good effect is only temporary, while their permanent influence is most mischievous. I know of nothing equal to moderate doses of sulphuric ether and valerian, for the relief of the depressing hyperæsthesia, and also of the paroxysms, when these are slight. They often act like a charm in soothing the sensations of the surface of the body; and, given as a medicine, they beget no such habit, as the permission to take small quantities of spirits frequently does. In the climacteric state of the female constitution, sulphuric ether is a more decided sedative than either morphia, the preparations of opium, or even hyoscyamus. In the height of the hyperæsthesia, an ether-

draught will often procure sleep when the brain refuses to be soothed by narcotics. Throughout the whole period of the change, great attention should be paid to the skin. The clothing should be carefully attended to, and, during winter, flannel jackets and drawers should be worn. Tepid bathing, with subsequent friction, are of great use in diminishing the excessive sensibility of the skin.

The time during which women are subject to the climacteric paroxysm, and the other affections at the decline of the catamenia, varies in different habits. Some women pass through it in a few months; in others, it extends over three, four, or five years, rendering the patient miserable during the whole time. The great majority of women suffer more or less until the cessation be finally accomplished; but there are a few to whom this time of life is a great blessing, giving them greater strength and comfort than they had ever enjoyed during the childbearing epoch. But these cases are the exceptions.

I have thus attempted briefly to sketch the special paroxysmal affection of the female climacteric, and its relation to other disordered conditions incident to the change of life. I am well aware how imperfectly this has been done. Indeed, within the limits of a paper, it would be impossible to do it justice, as the subject is one of sufficient importance to exhaust a treatise. I trust, however, I shall have the satisfaction of directing other observers to a very curious malady, and one which certainly, when I first drew attention to it, had not been distinctly recognized or described.—*London Journal of Medicine.*

MATERIA MEDICA AND CHEMISTRY.

A New Test for Albumen. By M. E. Million.—The highly acid liquid obtained by dissolving mercury in its own weight of nitric acid, constitutes an extremely delicate reagent for albumen and albuminous compounds.

This mercurial solution communicates to albuminous substances an intensely red color, by means of which a very minute proportion of albumen in water may be detected.

To give an idea of the delicacy of this reagent, and to show its applicability to the study of vegetable organization, it may be stated that starch and gum acquire by its action a very distinct rose tint. Urine almost always becomes colored of a rose tint after the nitro-mercurial solution has been mixed with it, and the mixture has been warmed. The albumen of the blood, that of serous effusions, of plants and fibrine, casein, gluten, legumin, silk, wool, feathers, horn, epidermis, gelatin, chondrin, and protein, are equally affected.

Protein rendered soluble by the prolonged action of an alkaline ley, or by sulphuric acid, is also colored red, but no precipitate is thrown down.

This mercurial solution is most readily prepared by dissolving mercury in its weight of nitric acid (1.4) in the cold. When reaction has ceased, a gentle heat may be applied to facilitate the solution of metal. When the solution is complete, the liquid is to be diluted with two parts of distilled water by measure. After some hours the liquid is to be decanted from any mixed crystals of nitrite and nitrate of mercury, which may subside.

This reagent acts on albuminous substances at low temperatures, but not so completely as at a temperature of from 140° to 150° Fah. It is even preferable, to continue the application of heat to the boiling point. The prolonged action of the reagent in excess does not alter the red matter, as has been ascertained by the contact of albumen with the nitro-mercurial liquid for upwards of one year.

According to M. Million, this singular property of giving a pink or red color to albuminous substances resides neither in the nitrate nor in the nitrite of mercury, nor in their mixture. It is necessary that there should be hyponitrous acid in the solution which contains the two salts. The pure pernitrate of mercury, saturated with hyponitrous acid, forms a delicate reagent, but inferior to that of a saturated solution of the mixed salts.

One or two drops of the test liquid are sufficient for the detection of albumen. Albumen has thus been detected in the liquid of cholera, when nitric acid and heat have failed to demonstrate its presence.—*Comptes Rendus*, Janvier 1849.

* I use the formula recommended by Dr. Ashwell—viz., $\frac{3}{4}$ vi of alum to each gallon of water; the temperature to be at 98 deg.