

from extrinsic causes. Presenting uniformly but the one symptom of frequent urination, these causes are infinitely less correctly differentiated by physicians, and consequently are worthy of the closest scrutiny and most careful management, therapeutically and otherwise. Every experienced gynecologist can recall only too many defeats in the treatment of irritable bladder from extrinsic causes because of not accurately ascertaining the causes in each case. The causes include:—

a. *Oöphoria*, or ovarian, vascular excitement. b. *Pressuré on the bladder or urethra* from the uterus, or from rectal abnormalities, or from intra-pelvic tumours. c. *Sympathetic irritation* from uterine inflammation. d. *Malignant disease of the cervix uteri*. e. *Pregnancy*. f. *Vaginismus*. g. *Acute pelvic peritonitis and cellulitis*. h. *Ascarides*. i. *Hysteria*. k. *Mental trouble, fright*. l. *Exposure during menstruation*. m. *Falls and blows over the bladder*. n. *Masturbation and copulation*; and o. *Malaria*.

The causes herein mentioned are enumerated *in extenso*, for the purpose of showing that the treatment cannot be the same in all cases of irritable bladder.

The management of cases produced by causes, usually involve remedies addressed to nutrition. *Too limpid urine* suggests hysteria, anemia, exposure to cold, mental emotion, in short, diuresis from any cause. Treatment of these conditions involves remedies addressed to the cause whatever it may be.

*Too concentrated urine*, shown by the small amount voided and by high specific gravity, calls for water simply. Ordinary drinking water, Poland water, Apollinaris water, or any of the simple mineral waters, capable of increasing the amount of water excreted by the kidneys will answer.

An excess of uric acid is one of the most common of all of the many causes of irritable bladder. Neglected, it speedily causes a congestion of the mucous membrane of the bladder, and this, in turn, propagates the polyuria and dysuria. The organic changes arising from this congestion are of a sufficiently progressive character to afford a constantly acting cause of irritable bladder. In this way, a bladder thus afflicted,

at first, say, three months ago, presents *to-day* an irritable condition arising from the products of chronic congestion, whereas the excess of uric acid starting in motion this pathological train of symptoms ninety days ago, now occupies a very inferior position in the cause to-day. Consequently the majority of cases treated by physicians present not only an excess of uric acid, but they present also a vesical mucous membrane congestion. To treat this condition requires skill and patience. An excess of uric acid indicates a systemic, and, especially, an alimentary defect. This excretion, possessed of another particle of oxygen, becomes urea and ceases to be a pathological product. To supply that oxygen is no easy matter. If the blood be made to carry more oxygen and thus supply the deficiency, we must give remedies to improve the oxygenating power of the blood. For this purpose one quarter to one grain doses of permanganate of potash, thrice daily, will be found useful. This powerful oxydizing agent yields up its oxygen in the form of ozone and converts uric acid into urea. Irritable bladder relieved by the permanganate is *relieved* simply, *not cured*. The alkaline carbonates neutralize uric acid excess directly, and indirectly diminish it by their action on the liver. The citrate or carbonate of lithium dissolves uric acid, and is a remedy of undoubted efficacy. Colchicum, in small doses improves the character of the digestive ferments and promotes more perfect digestion, and in this way supplies the liver with better pabulum, thus causing a lessening of the amount of uric acid. Its action is surprisingly happy in very many cases; but in many other cases it seems to extend the point of tolerance, causing unexpectedly, a vomiting and violent purging, an effect greatly to be deprecated. Fruit acids are converted into the alkaline carbonates in the blood and become dissolvers of uric acid or diuretics, and in this way are efficient aids in treating the uric acid excess. Many patients will be benefitted by a hot lemonade at bedtime, or by eating a lemon before breakfast daily, or by partaking liberally of acid fruit at breakfast and lunch times. The uric acid excess thus relieved can be said to be *relieved* only, *not cured*. It is well to use them, because