

strong solution, and to repeat the painting two or three times in the course of ten minutes, directing the patient not to swallow meanwhile, rather than to use a spray of a weaker solution over a large extent of surface. When a spray is used, a greater extent of mucous membrane than is necessary is exposed to the action of the drug, a greater quantity is absorbed, and symptoms of intoxication are, in the experience of the writer, more apt to occur, sometimes with great suddenness. The writer is in the habit of using for these purposes a solution containing five per cent. of cocaine, painting it on with a camel's-hair brush or a cotton swab; or, in suitable cases, a small pledget of cotton is saturated with the solution, but not to excess, applied accurately to the part upon which it is intended to operate, and left *in situ* for ten minutes.

The urethra appears to be well suited for the use of cocaine. The writer has been in the habit for many years of doing nearly all his internal urethrotomies, back to four and one-half inches from the meatus, under cocaine anæsthesia. In cases in which strictures are to be divided posterior to this point, the usual perineal drainage renders general narcosis more suitable. The method pursued is as follows: After irrigation of the urethra, one half drachm of a five-per-cent. solution is introduced into the canal by means of an ordinary urethral syringe. The meatus is compressed and ten minutes are allowed to elapse, when the remaining solution is allowed to escape and the operation is proceeded with, usually with little or no pain.

As an example of unusual tolerance of cocaine the writer would like to relate the following case: Upon the evening following an internal urethrotomy, one not very familiar with the use of the drug was directed to inject into the patient's urethra a small quantity of cocaine solution in order to render urination painless. By a mistake a quantity of cocaine was injected equal to about ten grains, and allowed to remain for ten minutes or more. The patient suffered from slight nausea and giddiness, and lay awake a considerable portion of the night, but had no severe symptoms of poisoning.

The introduction of one-half ounce of a five or ten per cent. cocaine solution into the urinary bladder is said to produce a satisfactory degree of anæsthesia for the performance of a rapid lithotrity with evacuation. The writer has no personal experience with this method. If an ulceration or other solution of continuity existed in the mucous membrane, the method would surely be dangerous. Ten grains of boric acid to an ounce of cocaine solution prepared with sterile