AN INSTRUMENT FOR ILLUMINATION AND SUCTION IN
CERTAIN SUPRAPUBIC OPERATIONS *

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The difficulty encountered in obtaining satisfactory illumination within the vesical cavity in certain suprapubic operations has been experienced at times by many engaged in this field of work. From the position of the bladder, deep in the pelvis, and the tendency of the pelvic viscera to encroach on the rather limited operative area, suitable illumination from above the wound cannot always be obtained. This is particularly true as regards an adequate and continued view of the base and deeper portions of the bladder cavity.

In an effort to provide a means to overcome this rather annoying handicap to many otherwise quickly executed operative procedures, an instrument has been devised to aid in illuminating the bladder cavity, and in addition to remove by suction the urine and a certain amount of blood which accumulates therein. This instrument has been found useful during the past two years in certain suprapubic work.

In suprapubic prostatectomy, many feel that a direct view of the intravesical prostatic enlargement is not always essential, and from the nature and position of the illuminator when in place, its usefulness in this procedure is limited. In practically all other operative work on the bladder performed suprapubically, however, it may be used to advantage. In simple suprapubic cystotomy, in resection of portions of the bladder wall for ulcers, new growths, etc., as well as in the resection of diverticula and in transplantation of the ureters, its use is often a distinct aid.

The composite instrument is composed of a hollow sheath with a perforated tip (on the order of the cystoscope with the Brown curve), into which is fitted an obturator. This is inserted into the urethra and passed through into the bladder after the patient has been placed on the operating table. A strip of adhesive plaster across the thighs of the patient and

filled with water, antiseptic fluid or air, as may be desired, preparatory to the suprapubic cystotomy. By an electric cord attachment the current is now turned on, and the bladder is outlined by distention and illumination.

After the stay sutures are placed in the bladder wall, the fluid or air is allowed to escape through the instrument, and thus any undue soiling of the operative field is avoided. When the bladder is opened, there is placed a tightly fitting

Fig. 2.—Longitudinal section of pelvis, with instrument in position.

perforated cap over the light within the bladder, which serves as a protection to the bladder mucosa from any heat generated by the lamp.

The lamp filament is of adequate illumination to give a brilliant light for hours when it is burned in the air. When the bladder is opened a suction pump (the type that is usually found in any operating room is satisfactory) is attached by heavy rubber tubing to the evacuating nozzle of the instrument, and a gentle suction established. This is usually sufficient for removing all of the urine and much of the blood accumulating within the bladder. Several tips have been devised as suction terminals varying in size, shape and the number of openings.

The accompanying illustrations convey a clear idea of the form and method of use of this device.

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Fig. 1.—Apparatus: A, hollow instrument sheath; B, perforated tip for intake of fluid; C, stopcock for regulating or closing suction; D, obturator which fits into sheath (A); E, hollow evacuating and illuminating tube which fits into sheath (A); F, perforated cap which fits over light (H); G, light attachment for electric cord; H, light.

attached to the instrument keeps it in place. The obturator is then withdrawn, and the hollow illuminating and evacuating tube is passed into the sheath and securely fastened. By a suitable stopcock any urine is withdrawn and the bladder

complete transformation from the larval stage, and twelve days for the adult mosquito to become infective, a total of thirty days to be counted back from the date of ultimate infectibility. The date to be named for the safe discontinuance of operations against the mosquito as an infecting agency would then be October 1.—*Pub. Health Rep.* 34:1972 (Aug. 29) 1919.

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