

16 MM COLORED MOTION PICTURE OF THE INTERIOR OF THE HUMAN BLADDER

KEIZO SHIMIZU

*Department of Urology, Nagoya University School of Medicine
(Director: Prof. Keizo Shimizu)*

I have succeeded in taking a colored movie of the interior of the human bladder by cystoscope with direct light for scientific study and education for students and postgraduates.

This improved cystoscope was devised by myself for movie and as illumination source maximum effect was obtained from the lamp with special thick tungsten coil (Fig. 1) that can be fit for 10.0 volts, 500 m. amp. It illuminates over 3000 lux and can take the picture of the interior of the bladder with 8 frames per second for color effect and for internal visualization and diagnosis. At that time a special apparatus is not necessary but this is a blind tube, so it is need to fill out the water into the bladder before the use of the cystoscope. It should be careful to avoid burning of the bladder mucosa which occurred by the contact of the top of the cystoscope lamp to the bladder mucosa.

The film is used 16 mm Ansco Tungsten Super Ansochrome (ASA 64) and taken by Pathe 16 mm reflexcamera (Made in France), with 0.95 F. lens Bell and Howell (Made in America) (Fig. 2).

The light should be sufficient to provide an illumination adequate for taking color movie. An exposure 1/25 second at a working distance is about one feet.

The image are sharp in detail and can be projected readily and enlarged for printed illustration.

Such a colored movie and photograph can be used for either a record of vesical lesion for teaching to students and postgraduates or for studying the condition of indigo carmine excretion, renal hematuria from ureter orifice and ureter catheter insertion and pulling out. Bladder-tumor can be thrown upon a screen.

Moreover cystoscopic still photograph could be taken easily with the same cystoscope connected with 35 mm reflexcamera (Asahipentax) used 35 mm tungsten Kodachrome film with time 1/5, 1/25 second (Fig. 3).

REFERENCE

1. SHIMIZU, K. *Nagoya J. Med. Sci.* 22: 2, 1959.
2. KANO, K. *Jap. J. Urol.* 27: 213, 1938.

Received for publication March 7, 1963.

3. MCCARTHY AND RITTER. *J. Urol.* 78: 674, 1957.
4. FREI. *Zschr. Urol.* 52: 513, 1959.
5. MANITIUS. *Zschr. Urol.* 52: 376, 1959.

EXPLANATION OF FIGURES

- FIG. 1. a) Old lamp
b) My improved lamp with thick tungsten coil
- FIG. 2. Pathe 16 mm movie camera connected with my improved cystoscope
- FIG. 3. Asahipentax connected with my improved cystoscope

a

b

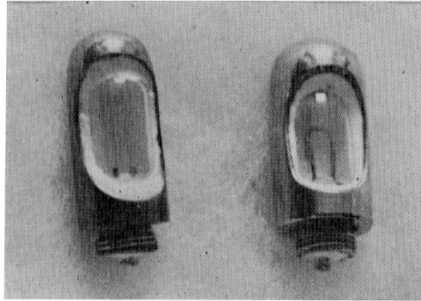


FIG. 1

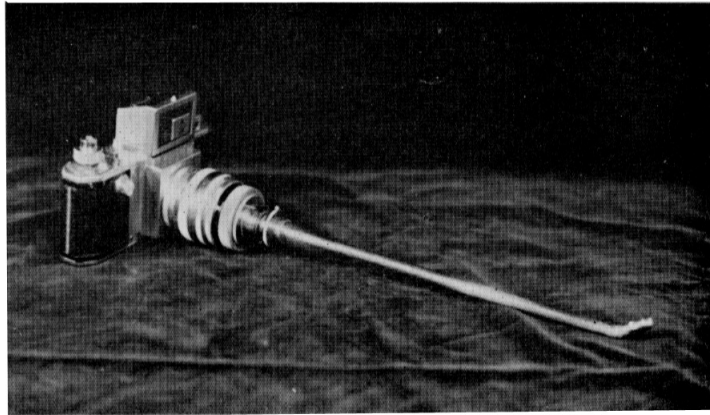


FIG. 2

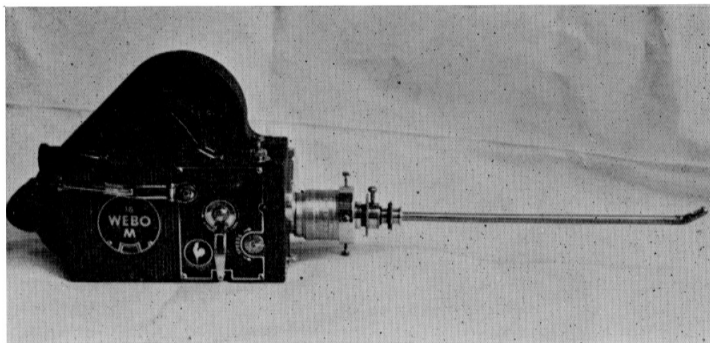


FIG. 3