

"RAIL BIOPSY" A Novel and Useful Technique for Hysteroscopic Endometrial Target Biopsy.

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ABSTRACT

STUDY OBJECTIVE: Endometrial biopsy (EB) is one of the most common gynecologic procedures.

Office-based EB has replaced procedures involving general/loco-regional anesthesia and cervical dilatation performed in the operating room [1-3]. The Grasp Biopsy seems to be the most appropriate EB technique for reproductive-aged women [1,2,4]. Recently, the Visual D&C performed with hysteroscopic tissue removal devices has shown to be a valid alternative [5]. However, it is often difficult to obtain an adequate specimens in peri/post-menopausal women with hypo/atrophic endometrium [2]. Our aim is to show a novel hysteroscopic EB technique called "Rail Biopsy" which requires widespread and cheap instruments.

DESIGN: A step-by-step explanation of surgical technique with narrated video footage.

SETTING: Tertiary Level Academic Hospital "IRCCS Azienda Ospedaliero-Universitaria di Bologna" Bologna, Italy.

INTERVENTIONS: We performed the "Rail Biopsy" technique with a 5.0 mm Continuous Flow Operative Hysteroscope with a 30° Lens and a 5Fr operative channel. We identify the endometrial target area (ETA), and we create a first track cutting through the endometrium in a caudo-cranial direction using cold scissors. We repeat the procedure, creating a second parallel track, thus completing our "rail" and isolating a wide ETA. Then, in the caudo-cranial direction, we cut through the stromal layer beneath the ETA. With a 5Fr cold grasping forceps, we clench the cranial edge of the ETA, and we remove it from the uterine cavity. A high-quality specimen, even in the case of hypo/atrophic endometrium or focal sessile lesions, can be obtained with this technique. The crucial aspect of the "Rail Biopsy" indeed is cutting through the stromal tissue while the endometrium is minimally touched, avoiding thermal damage deriving from electrosurgery. The instruments required are widespread and cheap. Moreover, this technique can be performed on any wall of the uterus, under vision, and, in the majority of patients, in an office-setting without cervical dilatation or general/loco-regional anesthesia, making it an attractive alternative to hysteroscopy performed in the operating room setting. Further studies comparing "Rail Biopsy" to other EB techniques are needed.

CONCLUSION: We showed a novel approach for hysteroscopic EB that may be particularly useful in patients with hypo/atrophic endometrium, easy to learn and with low costs. VIDEO ABSTRACT.