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Editorial

The Two-Point Technique of Fluoroscopy during the Urological Procedure: Is Really Necessary?

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HIGHLIGHTS

- The two-point technique for fluoroscopic-guided endoscopic procedures in urology as it was mentioned is under the consideration.
- The urologist should try to use less radiation through fluoroscopy during routine urologic procedures.

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ABSTRACT

Nowadays the common use of diagnostic and therapeutic ionizing radiation increases worries about excessive occupational and patient exposure. The novel fluoroscopic-guided endoscopic procedures can diminish radiation dose during urologic procedures. A "two-point technique (TPT)" is defined in which the fluoroscope image intensifier (c-arm) is shifted among caudal and cephalad set points of the operative field. Maybe patient radiation exposure is less with TPT than with a non-structured conventional technique, stated as the cognitive fluoroscopic technique (CFT). As we could see the urethral lumen clearly by Ureteroscope and endoscopic visions, we use rarely x-ray during our routine procedures in our center, except for percutaneous nephrolithotripsy.

Keywords: Fluoroscopy; Urological Procedure; Urology

Editorial: There is a debate over the two-point technique for fluoroscopic-guided endoscopic procedures, two-point technique (TPT)", in urology as was mentioned in research by Wagmaister and his colleagues (1). They conducted a validation study by introducing new technique to reduce radiation dose and fluoroscopic time during endoscopic urological procedures.

The TPT is explained in the article for Fluoroscopic-Guided Endoscopic Procedures, which the fluoroscope image is shifted between caudal and cephalad points of the operative field. TPT technique could successfully shorten the mean fluoroscopy time from approximately 104 to 71 seconds and the mean radiation dose from around 20 mGy to 11 mGy and this is wrathful for not the only surgical team, but the patient as well.

It could be found from the text all adult males and females requiring ureteroscopy or any fluoroscopy-guided endoscopic urologic procedure expect for percutaneous renal procedures are included in your study. It means that all of these procedures were done by fluoroscopic guidance. There was ureteroscopic stone treatment, ureteral or renal pelvis biopsy, endoscopic upper urinary tract tumor resection, diagnostic ureteroscopy, Double-J stent exchange, dilation of ureteral stricture, and endopyelotomy. It seems that Some of these procedures don't need fluoroscopy. If balloon dilatation is used during ureteral dilatation for urethral dilatation for ureteral stricture, fluoroscopy is indicated in some studies (2). But it doesn't mention that why radiation used for double–j exchange? Are all of these 106 patients need radiation

exposure?

When it comes to endourological procedures, we believe that we could use lees radiation in our procedures. Diagnostic ureteroscopy could be finely done by the guidewire and with slimmer ureteroscopes. In cases with severe stricture hydrophilic guidewires could help the urologist. And for the last solution, we can leave a double j stent for few weeks for passive dilatation. This strategy could be safer for both surgeon and the patient. Considering the ALARA principle (as low as reasonably achievable), that radiation doses should be kept as low as reasonably achievable, social and economic factors being taken into account, is well known to medical physicists. It is perhaps less well known that the ALARA principle applies to medical exposures as well as to other sources of radiation exposure (3).

Conclusions

Although this technique helps reduce radiation exposure to the urologist and surgical team, a urologist should try to use less radiation through fluoroscopy during routine urologic procedures. As we could see the urethral lumen clearly by Ureteroscope and endoscopic visions, we use rarely x-ray during our routine procedures in our center, except for percutaneous nephrolithotripsy.

Authors' contributions

SMKA is mainly designed and suggest the main idea of the manuscript, AFY wrote the manuscript and SMKA edited it.

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Conflict of interest

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Ethical statements

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Data availability

Not applicable.

Abbreviations

ALARA	As low as reasonably achievable
DJ	Double-J
TPT	Two-point technique

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