CT RECONSTRUCTED 3D MODELLING FOR SURGICAL PLANNING IN VESICOVAGINAL FISTULA REPAIR

Introduction
In this video, we presented the usage and efficacy of CT reconstructed 3D modelling method to plan the surgery in vesicovaginal fistula.

Design
47-years old female patient admitted to our clinic with continue urinary incontinence. She had previous total abdominal hysterectomy surgery 1 year ago. After surgery, immediate incontinence started, We performed detailed urologic evaluation focused on incontinence problem.

Results
In pelvic examination, vasicovaginal fistula was detected at the antero-superior part of the vagina, nearly located at the vaginal cuff. Continue urine drainage was seen during the examination. At the cystoscopic evaluation, two fistula were seen at the superior part of the bladder base. No foreign material or suture was seen in the bladder. Urinary analysis, renal function values were in normal range. Routine preoperative evaluation was performed. Enhanced abdominopelvic CT scan was done to exclude the relation of vagina with upper urinary tract. No connection between ureters and vagina was detected. Fistula tract was detected between vagina and bladder posterior side in CT. Before the surgery, we reconstructed CT images of abdominopelvic organs to understand better exact anatomy and location of fistula. Segmentation and volume rendering were achieved using Mimics® programme. Surgical planning was done using these images. Primary vesicovaginal fistula repair with endoscopic guidance was performed. Urethra catheter was put for 3 weeks. After three months, the patient was completely dry.

Conclusion
CT reconstructed 3D modelling in complex vesicovaginal fistulas before the surgery can help surgeons to make a surgical planning. It can be feasible to understand exact location of fistula, 3D visualization of fistula and anatomy, length and diameter of the fistula.

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