Simulated Management of Urinary Tract Injury During Robotic Gynecologic Surgery Utilizing the Porcine Model

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Background: Urologic injury is an infrequent but serious complication of gynecologic surgery. Training in the assessment and management of this injury might be enhanced through animate simulation.

Objective: This paper describes and assesses simulation of intraoperative management of urologic injury during robotic gynecologic surgery.

Study design: Utilizing the domestic pig, three types of urologic injury were created and managed during robotically-assisted surgery. An edited video-clip of the model was assessed by 15 senior learners and 8 attending faculty. The assessments included key competencies and domains of fidelity. A scale of poor, fair or good was utilized.

Results: The defects, injuries and repairs simulated that in the human both anatomically and surgically. Related to fidelity of the anatomy of the ureter and bladder, lower ratings were given for some of the key competencies (determining the relationship to the trigone, ureteral mobilization, repair of all 3 injuries).

Conclusion: Reported here is a porcine model for simulation of urologic injury during robotically-assisted gynecologic surgery that may be useful for training purposes.