Introduction: In North America, obtaining access for percutaneous nephrolithotomy (PCNL) is more commonly performed by radiologists rather than urologists, resulting in a two-stage procedure. Hands-on training sessions help to ensure this skill continues within the urologic community. A new ex vivo pig kidney model with a fluoroscopic C-arm and standard PCNL equipment was developed for this purpose. The bullseye or triangulation techniques are both possible. We propose this as a high-fidelity tool for teaching PCNL access.

Methods: The pig kidney, fat, ribs, flank, and skin were arranged anatomically on a table with fluoroscopy. Hands-on training was provided to residents and urologists using the ex vivo pig model and a silicone-based percutaneous access model. Questionnaires were given at the end of the session.

Results: There were 14 responders for each model, with incomplete responses on two surveys. A total of 15% of responders for the pig model and 7% of responders for the silicone model had previous percutaneous access experience. For the pig model, 93% of trainees agreed or strongly agreed that the model was easy-to-use, and 79% of the silicone model trainees felt the same. After the session, 86% of pig model trainees and 50% of silicone model trainees reported increased confidence in their ability to obtain PCNL access. All the pig model trainees and 71% of the silicone model trainees felt that the simulation activity was worthwhile.

Conclusions: The inexpensive but anatomically realistic ex vivo pig model using real world equipment provides trainees with an excellent tool to learn PCNL access.

Themes:

Check (highlight) the most applicable theme according to the abstract.

| Innovation and Technology | Health and Wellness | Culture and Society | Sustainability and Conservation |

Comments: This was a clear and well-written abstract. Are there any statistics that could be performed on this qualitative analysis to see if the pig model is preferred over the silicone model? This might be worth contacting the UBC undergraduate statistics students that will work with you to define and optimize statistical testing in your experiment.