

# Ultrasound-guided percutaneous nephrostomy

Sir,

I read with great interest the article by Karim *et al.*<sup>[1]</sup> This procedure is a life-saving procedure for scores of obstructive uropathy patients. I commend the authors on presenting their data on the technique. Although the article throws light on the technique and also reiterates a few “known” facts regarding ultrasound-guided percutaneous nephrostomy (PCN), I would like to pose a few questions and make a few comments.

First, the authors’ mention that in all the patients PCN was done in a prone position. This may not be feasible always. It is a known fact that patients with chronic kidney disease, sepsis, pyonephrosis are a group of patients who often are unable to lie in a prone position due to breathlessness and other co-morbidities. In such situations, PCN in a supine position is of benefit. Percutaneous ultrasound access in a supine position is being practiced at our center for gaining access,<sup>[2]</sup> The ultrasound is of particular benefit in this position as it minimizes the chance of bowel injury. In our experience, ultrasound-guided puncture of the lower and middle calyx is possible in most of these patients. What is the authors’ experience as regards supine PCN?

Secondly, I feel the tube size that the authors have used (6-8.5 Fr) is suboptimal. Such small caliber nephrostomies tend to block in pyonephrosis. This may be the reason for higher incidence of tube blockage (19%) as noted in this series.

Thirdly, a few comments are there regarding the access. At our center, we always place two bolsters, one below the lower chest and one below the hips in the prone position. We hypothesize that this helps for the bowel to fall away and minimizes the chance of injury. A useful tip in difficulty in getting a percutaneous renal access is administration of diuretic, if medically not contraindicated. This helps in distension of the calyces and helps in gaining access. One should also remember that if the tip of the needle is not seen along its trajectory, one should be beware of an intervening bowel.

I agree with the authors that a skilled hand is required for success of the procedure. The “hand” may be of a skilled interventional radiologist or an urologist. It is worth noting that there are clinical situations where an urologist is a better person to achieve the access. For

instance, a patient with obstructive uropathy with renal and ureteric calculi, it will be the urologist who will be doing the percutaneous nephrolithotomy and clearing the stone bulk, and hence, the urologist rather than a radiologist would have a better insight into selecting the appropriate calyx to create a percutaneous tract to clear the stone with minimum morbidity.

Last but not the least, I agree with the authors that ultrasound-guided PCN placement is an indispensable emergency procedure, and open nephrostomy is almost relegated to history.

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