

Percutaneous nephrostomies in gynecologic malignancy can be a pain in the back

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Objectives

Percutaneous nephrostomy tubes (PNT) are commonly placed in patients with active or prior gynecologic malignancies who need urinary diversion. However, these can often result in complications. This project aimed to ascertain the types, frequency, and impact of complications arising post-PNT placement, stratified by disease site.

Methods

An IRB-approved de-identified retrospective chart review was undertaken of a selection of patients who had received treatment for a Mullerian malignancy at a comprehensive cancer center and had PNT placed between July 2012 and July 2024. Data were collected on demographics, duration and course of PNT, and PNT complications. Complications were broadly defined as necessitating intervention or evaluation. Nonparametric tests were used for comparison, with significance set as $p=0.05$.

Results

51 patients were reviewed: 23 (45%) with cervical cancer (CC), 14 (27%) with endometrial cancer (EC), 13 (25%) with ovarian cancer (OC), and 1 (2%) with vulvar cancer (VC). Median age overall was 56, 43% were White, and 41% were Hispanic. PNTs were in place for a median of 5 months (range 0-115). Complications occurred in 76% of patients (39), with 260 complications over 220 instances. Rates of patients with complications in CC (91%) were significantly ($p=0.0002$) higher than rates in OC (69%) or EC (64%). There was a median of 2 instances per patient (IQR 1-6, range 0-21), with a median rate of 0.4 instances per month of PNT (IQR 0.05-0.83). CC (0.43) and OC (0.42) had higher rates than EC (0.22), but there was no significance between groups ($p=0.4305$). There were 149 infections and 85 dislodgments. 49% of complications occurred while on cancer therapies, causing delays in treatment 35% (39 cases) of the time. Delays were most often due to medication unavailability (36%) and inability to access outpatient services (38%). 37% (15) of patients who died had a complication in the month prior to death or hospice transition.

Conclusions

Complications were significantly more frequent in this population and occurred both on therapy and during surveillance, often leading to treatment delays. PNT complications represent a significant burden, and efforts should be made to minimize the impact with education, routine exchanges, social support, multidisciplinary coordination to minimize outpatient therapy interruptions, and regular follow up.

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