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Abstract No. 166

Institution-wide experience with in-house modified occluding nephroureteral stents
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Purpose: To describe our institution-wide experience with in-house modified occluding nephroureteral stents

Materials and Methods: Current reversible therapies for temporary urinary diversion include percutaneous nephrostomies (PCN) and percutaneous internal/external nephroureteral (PCNU) stents. These methods offer external drainage of urine, thereby decreasing the flow down the ureter and into the bladder. However, some patients may require better urinary diversion than PCNs and PCNU stents can offer. At our institution, a mechanically modified occluding nephroureteral stent (MOPNU) stent has been used. The modification for MOPNU stent is accomplished by using a heating element to soften and seal a standard PCNU catheter which has been cut across its mid-portion between its two loops. The modified catheter is then inserted via a peel-away sheath.

Results: In a retrospective review of subjects receiving a MOPNU stent between October 2006 and December 2019 at our institution, a total of 85 subjects were identified, including 29 females and 56 males. The mean age was 64.7 (SD = 14.9), ranging from 27.3 to 92.7. The most common indications for MOPNU stent placement were urinary diversion for urinary tract fistulas, ileal conduit complications, iatrogenic urinary injury and persistent hematuria. Of these patients, 69 (81%) had a history of cancer and 4 (5%) had history of inflammatory bowel disease.

The primary endpoint was durable treatment at 6 weeks defined as complications free complete urinary diversion. The secondary endpoints were durable treatment at 3, 6 months and 1 year. There were 52 (61.2%) subjects with a durable treatment at 6 weeks, 31 (36.5%) at 3 months, 17 (20.0%) at 6 months, and 12 (14.1%) at 1 year. No clear predictors of failure or success were identified.

Sixty-three patients were converted from PCN to MOPNU stent, while twenty-two patients had MOPNU stents placed in a primary fashion. MOPNU placement had a 100% success rate. During the entire duration of treatment 10 subjects (11.9%) had tube blockage, 8 (9.5%) had urine leak, 8 (9.5%) had decreased tube output, 13 (15.5%) had a hematuria, 20 (23.8%) had tube dislodgement, 28 (33.7%) were diagnosed with a UTI, 13 (15.5%) needed revision for unknown reason.

Conclusions: Having a tool for reversible urinary diversion is invaluable to treat certain medical conditions. MOPNU stents can provide temporary, safe, reversible urinary diversion in patients requiring better urinary diversion than PCNs and PCNUs can offer.

Abstract No. 167

Interventional radiology procedure volume changes during the COVID-19 pandemic
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Purpose: COVID-19 has impacted many facets of medical care. Elective surgical procedures were put on hold to prevent the spread of the virus, reduce exposure risk of staff, and potentially repurpose ORs for critical care areas. Interventional radiology (IR) suites were largely kept open for all procedures (emergent or elective) with changes focused on workflow, PPE, and room sanitation between procedures. Previous single-hospital study showed a large reduction in IR procedure volume over a span of 4-weeks. Here, we explore the effect of COVID-19 on procedure volume in a multi-hospital analysis over the course of months.

Materials and Methods: Case load in 3 URMC-affiliated hospitals during a 4-months period before and after the COVID-19 pandemic were analyzed. Procedure types and context (inpatient, outpatient, or emergency) were recorded for all procedures. CT-guided procedures, angiograms, and venograms were grouped together. Procedure volume was calculated as a percentage of all procedures, and differences per month were compared between pre-COVID and COVID months using two-tailed t-test with significance set at P < 0.05.

Results: A total of 7159 procedures were performed over the eight-month period (November 2019–June 2020). There was a significant reduction in procedures per month after the onset of the COVID pandemic from 1005 to 838 (P = 0.023). When analyzing volume of individual procedures, there was a significant reduction in volume of common procedures, such as Mediport discontinuations (P = 0.035) and ultrasound-guided percutaneous biopsies (P = 0.027). There was an increase in volume of procedures shared with other specialties, such as angiograms (P = 0.045) and paracenteses (P = 0.005). More complex procedures, such as TIPS or tumor ablations did not reflect a significant change in volume. There was a significant decrease in volume of emergency room procedures (P = 0.011) and a significant increase in volume of inpatient procedures (P = 0.016); changes in outpatient procedures were not significant.

Conclusions: Across 3 hospitals in the URMC network, there was an overall reduction in monthly procedure volume after the onset of the COVID-19 pandemic. As expected, common elective procedures experienced a decrease in volume during the COVID-19 months. However, IR continues to demonstrate its value during the COVID-19 pandemic as a minimally invasive specialty, seeing an overall increases in inpatient volume and procedures commonly shared with other specialties.

Abstract No. 168

Platelet-to-lymphocyte ratio: utility in metastatic colorectal patients undergoing radioembolization
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Purpose: While the platelet-to-lymphocyte ratio (PLR) has been found to predict outcomes in metastatic colorectal (mCRC) patients being treated with systemic therapy, little data is available regarding its utility in predicting outcomes of mCRC patients being treated with radioembolization. The purpose of this study was to determine the predictive value of PLR in terms of radiologic response and overall survival (OS) in mCRC patients undergoing radioembolization.

Materials and Methods: Between January 1, 2014, and December 31, 2019, a total of 46 patients who underwent