Introduction: Hypokalemia is common disorder in peritoneal dialysis patients. Some studies have shown associations of its levels with all-cause mortality. Here, we conducted a study to identify frequency and the association between peritonitis and hypokalemia.
Methods: A single center, retrospective study in a tertiary Hospital in Queretaro, Mexico. A consecutive sample was approached.

Serum potassium (SK) levels and degree of hypokalemia were analysed with peritonitis. Differences were compared using 2 chi-squares for categorical variables. Relationship were assessed using Pearson correlation coefficients. All statistical tests were performed using SPSS 28.0 and a $P < 0.05$ level of significance.
Results: There were a total 125 patients, 49 patients (40%) with hypokalemia (53.7 in the cohort. Mean age of 52, 54% were men, 32% known for diabetes. Hypokalemia showed significant correlation with serum creatinine, cholesterol levels, albumin, phosphorus and PTH intact levels. Also, low serum potassium levels below 4 mEq/L showed statistically significance with peritonitis (p=0.008).
Conclusions: Hypokalemia shows and association with more peritonitis episodes. In addition, hypokalemia showed lower nutritional serum biochemical markers. There results provide preliminar information that could help us understand the metabolic alterations associated in peritonitis episodes in PD patients.

I have no potential conflict of interest to disclose.

WCN24-2639

TENCKHOFF CATHETER PLACEMENT IN HEART FAILURE WITH REFRACTORY ASCITES

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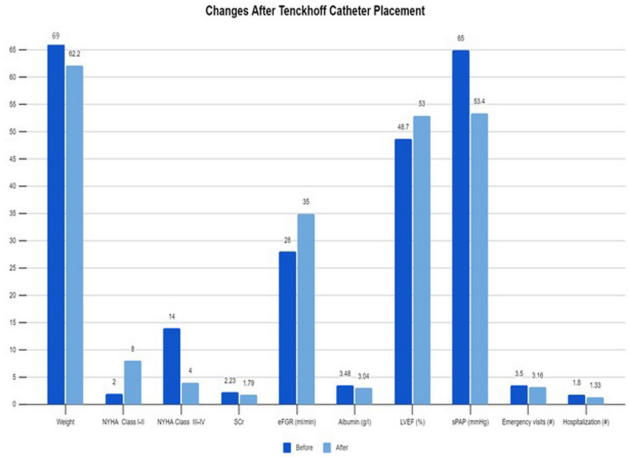
Introduction: Ascites due to heart failure (HF) is associated with poor life expectancy. Management of refractory ascites is often performed by large volume serial paracentesis. The use of peritoneal dialysis catheter placement for ascites management has been described with controversial results. We describe our center experience using Tenckhoff (TNK) catheter in management of refractory ascites due to heart failure.
Methods: Observational and retrospective cohort study in a single third level center, from January 2015 to August 2021. Patients with refractory ascites due to HF with or without hepatic failure were included. A TNK catheter was placed by a surgeon or an interventional nephrologist. Follow-up was made a month after insertion and until outcomes (kidney failure or death) occurred.
Results: Sixteen patients were included, eleven were men. Heart failure etiologies were ischemic heart disease and valvulopathy in 8 and 7 patients respectively. Comorbidities were diabetes and hypertension, 6 patients in each one. Upon admission 81.25% of patients developed acute kidney injury, requiring renal replacement therapy in 38.4%. Average weight decreased from 69 to 62.2 Kg after TNK placement (p 0.017). We demonstrated improvement of HF functional class after TNK placement, NYHA class was improved from 12.5% in class II to 66.7% in class I. Likewise more severe NYHA stages improved class IV (87.5%) to class III (33.3%) (p 0.034). Tricuspid insufficiency was improved from 68.7% to 47.3% (p 0.041). There were no significant changes in LVEF, sPAP or pericardial effusion. Emergency visits and hospitalizations did not change significantly. eGFR and urinary volume improved from 28 ml/min/1.73 m2 and 1200 ml/24 h to 35 ml/min/1.73 m2 (p 0.025) and 1483 ml/24 h (p 0.052), respectively (Figure 1). Complications from catheter placement were hematic fluid (25%), leakage (12.5%) and accidental catheter displacement (6.2%). Peritonitis rate was 1 episode per-19 patient-months and 0.62 episodes per patient-year. TNK was removed in 37.5% of cases due to peritonitis in 3 cases and HF improvement in 2, with posterior replacement in 3 o them. Kidney failure requiring chronic renal replacement therapy occurred in 25%.

Death occurred in 25% due to cardiovascular events in 2 cases and one due to gastrointestinal hemorrhage.



Conclusions: TKN placement is viable and safe in the management of refractory ascites in HF. Prospective clinical trials are needed to assess long-term survival and quality of life.

I have no potential conflict of interest to disclose.

WCN24-2649

CALCIFIED MASSES IN A PERITONEAL DIALYSIS PATIENT: UREMIC TUMOR CALCINOSIS

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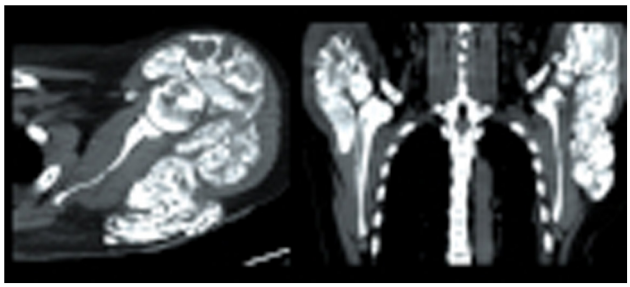
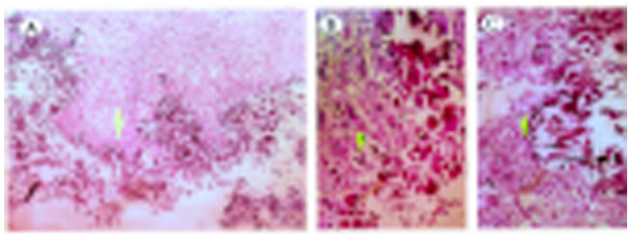
Introduction: Uremic tumor calcinosis is an uncommon condition characterized by calcium salt deposition in different regions of periarticular soft tissue in patients with chronic kidney disease. Its prevalence is estimated at 1.6% in patients receiving peritoneal dialysis. (1)

The risk factors described for the development of this pathology include persistent hyperphosphatemia, elevated levels of calcium x phosphorus (CaxP) product, and severe secondary hyperparathyroidism. Diagnosis is based on the clinical presentation of masses in periarticular areas, laboratory tests related to alterations in bone and mineral metabolism

(calcium, phosphorus, parathormone), imaging of the lesion, and, if possible, a biopsy of the lesion. This case is particularly interesting because the diagnosis of uremic tumor calcinosis is based on histopathological findings and existing clinical correlation. (2,3)
Methods: It is case report.
Results:





Conclusions: UTC diagnosis relies on clinical history, laboratory, radiological, and histological findings (4). Lesions typically form in the periarticular soft tissue of the large joints; given the slow initial growth, they present few clinical manifestations. However, as the tumors grow, they can cause pain and functional disability in the affected limb. Rarely, the underlying skin shows inflammatory signs, ulceration, and secretion of milky material containing calcium salts, which may resemble purulent material simulating an infectious condition (5). In our case, the patient presented with inflammatory signs and drainage of seropurulent fluid in the affected area of the left shoulder. This required surgical cleaning in the operating room and initiation of antibiotic therapy despite negative culture results.

Uncontrolled hyperphosphatemia, with a CaxP product above 60-68 mg^2/dL^2 has been described as one of the findings reported in PD patients with UTC that facilitates extraosseous calcification. (3,8) Other findings associated with pathogenesis include secondary hyperparathyroidism (iPTH >400 pg/ml), aluminum intoxication, excessive use of calcium chelators, or active vitamin D analogs, so that a bone mineral profile study is necessary when UTC is suspected. (4,7,8)

In the present case the CaxP product above 60 and severe hyperparathyroidism with a PTH>900 pg/ml, as the presence of calcinosis cutis, vascular calcification, and the calcified tumor lesion in the shoulder observed in the CT scan, allowed the suspicion of UTC, which is confirmed by the presence of multinucleated giant cells type foreign material due to calcium deposition in the biopsy.

When UTC is suspected, itś necessary to rule out other pathologies such as infectious diseases (cellulitis, arthritis, abscesses, or acute osteomyelitis), inflammatory diseases (bursitis, reactive arthritis, or arthritis secondary to systemic disease), metabolic diseases (gouty arthritis or chondrocalcinosis) and other calcifying diseases (4, 6, 7, 8).

Medical treatment for UTC includes dietary phosphorus restriction, the use of non-calcium chelators, calcimimetics that do not produce calcium elevation such as cinacalcet, and the use of peritoneal dialysis solutions with low calcium content (1,4,7,9,10). Given the severity of the picture or the persistence of the mass despite the medical treatment previously described, surgical resection of the parathyroid glands and renal transplantation are suggested. The latter has been shown to have higher rates of complete resolution (11-14). Currently, our patient has had the parathyroidectomy and is being evaluated for kidney transplant waiting list.

This case represents the first report of UTC in Perú in which the diagnosis has been confirmed by biopsy of the tumor lesion, so we emphasize the importance of ruling out this pathology in all patients with CKD on dialysis who present bone mineral disease associated with tumor lesions in the clinical examination and the presence of periarticular calcifications in radiography. With respect to treatment, the use of non-calcium chelators, and calcimimetics that do not produce elevation of calcium concentrate should be considered at the beginning. In case medical therapy proves ineffective, the option of surgical treatment, such as parathyroidectomy and renal transplantation, should be considered.

I have no potential conflict of interest to disclose.

WCN24-2654

EARLY COMPLICATION RATES AND SURVIVAL OF PERITONEAL DIALYSIS CATHETER PLACEMENT BY NEPHROLOGISTS USING TROCAR VERSUS SELDINGER TECHNIQUE: A SINGLE-CENTER EXPERIENCE FROM MEXICO

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Introduction: Effective peritoneal access is essential for successful peritoneal dialysis (PD) treatment. Historically, catheter placement by nephrologists has not been linked to major complications. However, the choice of percutaneous techniques may vary across centers based on experience. This study investigates complication rates and survival associated with two placement techniques: the commonly used trocar technique (TT) and the recently acquired Seldinger technique (ST) within a Mexican PD unit at a nephrologist training center.

Methods: This observational and retrospective cohort study includes procedures performed from July 2021 to September 2023 at the Hospital Regional Valentín Gómez Farías in Jalisco, Mexico. Two comparison groups were established: TT versus ST. Complications, including leaks, bleeding, dysfunction, and infection, as well as 30-day survival, were analyzed, with a 3:1 ratio (TT versus ST).

Results: A total of 51 patients underwent TT, while 17 patients underwent ST. Complications occurred in 41% (n=7) of the ST group and 15% (n=8) of the TT group. Immediate complications, including leaks and bleeding, were observed in 23% (n=4) of the ST group and 5% (n=3) of the TT group (p=0.026) (Figure 1). The catheter survival rate at 30 days was 94% for TT and 70% for ST (p=0.478) (Figure 2). No infectious complications were recorded in either group.

Figure 1. Cumulative event-free rate after 30 days follow-up

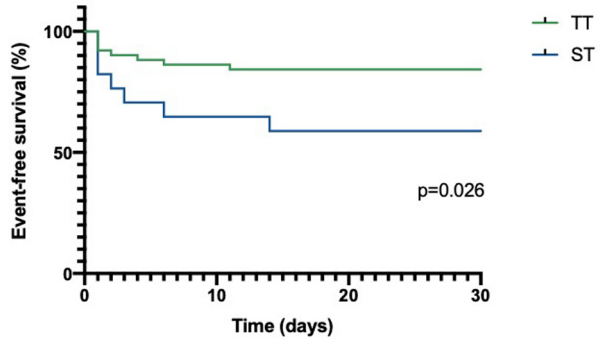
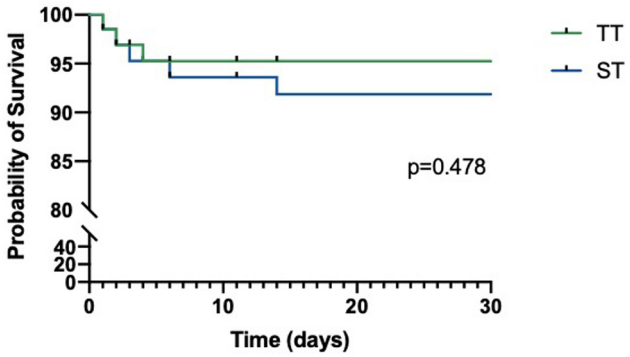


Figure 2. Catheter survival



Conclusions: Differences in catheter survival based on technique were observed in our center, but statistically non-significant. However, the ST was associated with a significant higher incidence of immediate complications. These findings may be linked to the learning curve of the acquired technique.

I have no potential conflict of interest to disclose.

WCN24-2664

RISK FOR TECHNIQUE FAILURE IN PERITONEAL DIALYSIS: RETROSPECTIVE COHORT STUDY

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