Abstract:
Introduction Xanthogranulomatous pyelonephritis (XGPN) is a great imitator as it has a wide range of atypical presentations and is difficult to diagnose clinically. We report a rare case of focal XGPN without stone masquerading as a renal neoplasm. Case Report-A 60 year old diabetic lady presented to our outpatient clinic with a history of left sided loin pain and dysuria of 2 months duration. There was no history of hematuria or LUTS. Clinical examination was unremarkable but for pallor. Investigations showed hemoglobin as 8.2 g, ESR-38mmHr renal function was normal. Urine culture showed 10x5klebsiella growth. Ultrasonogram showed a mixed echogenic complex cystic mass arising from lower pole of the left kidney. Contrast CT scan of kidney showed enhancing mixed, dense, multisepated cystic mass from lower pole of the left kidney, normal collecting system with no stone.

The right kidney was normal. The lesion was extending into perinephric tissues with enlarged hilar nodes. Renal vein and IVC appeared normal. With a provisional diagnosis of a renal neoplasm, this patient was planned for left radical nephrectomy. Preoperative chest X-ray and liver function test were normal. Intraoperatively the lower pole was found adherent to psoas muscle and left colon which was carefully separated. Radical nephrectomy was completed and hilar nodes were sampled. Post operatively the patient recovered well but for a wound infection that required secondary suturing. To our surprise, the histopathology was reported as focal lower pole XGPN.

Keyword: focal, xanthogranulomatous, pyelonephritis

Focal xanthogranulomatous pyelonephritis sans calculus- a unique case scenario
Introduction:
Xanthogranulomatous pyelonephritis (XGPN) is a great “imitator” as it has a wide range of atypical presentations and is difficult to diagnose clinically. It is a chronic suppurative renal parenchymal infection; up to 10% of these are not associated with stones. We report a rare case of focal XGPN without stone masquerading as a renal neoplasm.

Case Report:
A 60-year-old diabetic lady presented to our outpatient clinic with a history of left sided loin pain and dysuria of 2 months duration. There was no history of hematuria or LUTS. Clinical examination was unremarkable but for pallor. Investigations showed hemoglobin as 8.2 g%, ESR- 38mm/Hr; renal function was normal. Urine culture showed 10⁵ klebsiella growth. Ultrasonogram showed a mixed echogenic complex cystic mass arising from lower pole of the left kidney. Contrast CT scan of kidneys showed enhancing mixed, dense, multiseptated cystic mass from lower pole of the left kidney, normal collecting system with no stone. The right kidney was normal. The lesion was extending into perinephric tissues with enlarged hilar nodes. Renal vein and IVC appeared normal. With a provisional diagnosis of a renal neoplasm, this patient was planned for left radical nephrectomy. Preoperative chest X-ray and liver function test were normal. Intraoperatively the lower pole was found adherent to psoas muscle and left colon which was carefully separated. Radical nephrectomy was completed and hilar nodes were sampled. Post-operatively the patient recovered well but for a wound infection that required secondary suturing. To our surprise, the histopathology was reported as focal lower pole XGPN.

Discussion:
XGPN is a rare entity with a reported incidence between 0.6-1.4%. Most cases are unilateral with a peak incidence in the fifth to seventh decade. Diabetics and women are more commonly affected as was our patient. The classic triad of unilateral renal enlargement with little or no function and a large pelvic calculus is seen in 50-80% of patients. Diffuse form accounts for up to 80% cases. Preoperative diagnosis of XGPN is challenging. CT is the most useful radiologic investigation with 80-90% accuracy. CT demonstrates a large reniform mass with the pelvis surrounding a central calcification. There may also be multiple water density masses representing dilated calyces and abscess cavities filled with pus and debris as seen in our patient. CT shows extent into surrounding tissues- stage 2 perinephric extension- as seen in this case. Radiologic features though distinctive cannot differentiate it from malignancy. Also XGPN is known to be associated with renal cell carcinoma and TCC. The lipid laden macrophages closely resemble clear cell adenocarcinoma. We did not have frozen section at our institute and due to the above dilemma; we proceeded with a left radical nephrectomy. Histopathology demonstrates sheets of lipid laden histiocytes, inflammatory cells and necrotic areas that is conclusive for the diagnosis. At nephrectomy it is important to remove the entire inflammatory mass as 75% of it is infected. Conclusion – Focal XGPN is difficult to diagnose preoperatively and may be amenable to nephron sparing approaches if feasible. A differential diagnosis of XGPN must be borne in mind when evaluating an elderly diabetic female with a focal septated mass.
References:
