OPINION REVIEW

Malignant insulinoma: Can we predict the long-term outcomes?

Cigrovski Berkovic M, Ulamec M, Marinovic S, Balen I, Mrzljak A

MINIREVIEWS

Practical points that gastrointestinal fellows should know in management of COVID-19

Sahin T, Simsek C, Balaban HY

Nanotechnology in diagnosis and therapy of gastrointestinal cancer

Liang M, Li LD, Li L, Li S

Advances in the clinical application of oxycodone in the perioperative period

Chen HY, Wang ZN, Zhang WY, Zhu T

ORIGINAL ARTICLE

Clinical and Translational Research

Circulating miR-627-5p and miR-199a-5p are promising diagnostic biomarkers of colorectal neoplasia


Retrospective Cohort Study

Management and outcome of bronchial trauma due to blunt versus penetrating injuries


Retrospective Study

Ovarian teratoma related anti-N-methyl-D-aspartate receptor encephalitis: A case series and review of the literature

Li SJ, Yu MH, Cheng J, Bai WX, Di W

Endoscopic surgery for intraventricular hemorrhage: A comparative study and single center surgical experience

Wang FB, Yuan XW, Li JX, Zhang M, Xiang ZH

Protective effects of female reproductive factors on gastric signet-ring cell carcinoma

Li Y, Zhong YX, Xu Q, Tian YT

Risk factors of mortality and severe disability in the patients with cerebrovascular diseases treated with perioperative mechanical ventilation

Zhang JZ, Chen H, Wang X, Xu K
## World Journal of Clinical Cases

**Contents**

**Thrice Monthly Volume 10 Number 16 June 6, 2022**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>5266</td>
<td>Long-term outcomes of high-risk percutaneous coronary interventions under extracorporeal membrane oxygenation support: An observational study</td>
<td>Huang YX, Xu ZM, Zhao L, Cao Y, Chen Y, Qiu YG, Liu YM, Zhang PY, He JC, Li TC</td>
</tr>
<tr>
<td>5275</td>
<td>Health care worker occupational experiences during the COVID-19 outbreak: A cross-sectional study</td>
<td>Li XF, Zhou XL, Zhao SX, Li YM, Pan SQ</td>
</tr>
<tr>
<td>5287</td>
<td>Enhanced recovery after surgery strategy to shorten perioperative fasting in children undergoing non-gastrointestinal surgery: A prospective study</td>
<td>Ying Y, Xu HZ, Han ML</td>
</tr>
<tr>
<td>5297</td>
<td>Orthodontic treatment combined with 3D printing guide plate implant restoration for edentulism and its influence on mastication and phonic function</td>
<td>Yan LB, Zhou YC, Wang Y, Li LX</td>
</tr>
<tr>
<td>5306</td>
<td>Effectiveness of psychosocial intervention for internalizing behavior problems among children of parents with alcohol dependence: Randomized controlled trial</td>
<td>Omkarappa DB, Rentala S, Nattala P</td>
</tr>
<tr>
<td>5317</td>
<td>Crouzon syndrome in a fraternal twin: A case report and review of the literature</td>
<td>Li XJ, Su JM, Ye XW</td>
</tr>
<tr>
<td>5324</td>
<td>Laparoscopic duodenojunostomy for malignant stenosis as a part of multimodal therapy: A case report</td>
<td>Murakami T, Matsui Y</td>
</tr>
<tr>
<td>5331</td>
<td>Chordoma of petrosal mastoid region: A case report</td>
<td>Hua JJ, Ying ML, Chen ZW, Huang C, Zheng CS, Wang YJ</td>
</tr>
<tr>
<td>5337</td>
<td>Pneumatosis intestinalis after systemic chemotherapy for colorectal cancer: A case report</td>
<td>Liu H, Hsieh CT, Sun JM</td>
</tr>
<tr>
<td>5343</td>
<td>Mammary-type myofibroblastoma with infarction and atypical mitosis-a potential diagnostic pitfall: A case report</td>
<td>Zeng YF, Dai YZ, Chen M</td>
</tr>
</tbody>
</table>
Contents

Thrice Monthly Volume 10 Number 16 June 6, 2022

5352  Comprehensive treatment for primary right renal diffuse large B-cell lymphoma with a renal vein tumor thrombus: A case report

5359  Ectopic peritoneal paragonimiasis mimicking tuberculous peritonitis: A care report

5365  Neonatal hemorrhage stroke and severe coagulopathy in a late preterm infant after receiving umbilical cord milking: A case report
Lu Y, Zhang ZQ

5373  Heel pain caused by os subcalcis: A case report
Saijilafu, Li SY, Yu X, Li ZQ, Yang G, Lv JH, Chen GX, Xu RJ

5380  Pulmonary lymphomatoid granulomatosis in a 4-year-old girl: A case report
Yao JW, Qiu L, Liang P, Liu HM, Chen LN

5387  Idiopathic membranous nephropathy in children: A case report
Cui KH, Zhang H, Tao YH

5394  Successful treatment of aortic dissection with pulmonary embolism: A case report
Chen XG, Shi SY, Ye YY, Wang H, Yao WF, Hu L

5400  Renal papillary necrosis with urinary tract obstruction: A case report
Pan HH, Luo YJ, Zhu QG, Ye LF

5406  Glomangiomatosis - immunohistochemical study: A case report
Wu RC, Gao YH, Sun WW, Zhang XY, Zhang SP

5414  Successful living donor liver transplantation with a graft-to-recipient weight ratio of 0.41 without portal flow modulation: A case report
Kim SH

5420  Treatment of gastric hepatoid adenocarcinoma with pembrolizumab and bevacizumab combination chemotherapy: A case report
Liu M, Luo C, Xie ZZ, Li X

5428  Ipsilateral synchronous papillary and clear renal cell carcinoma: A case report and review of literature
Yin J, Zheng M

5435  Laparoscopic radical resection for situs inversus totalis with colonic splenic flexure carcinoma: A case report

5441  PIGN mutation multiple congenital anomalies-hypotonia-seizures syndrome 1: A case report
Hou F, Shan S, Jin H
# Contents

**World Journal of Clinical Cases**

**Thrice Monthly Volume 10 Number 16 June 6, 2022**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>5446</td>
<td>Pediatric acute myeloid leukemia patients with i(17)(q10) mimicking acute promyelocytic leukemia: Two case reports</td>
<td>Yan HX, Zhang WH, Wen JQ, Liu YH, Zhang BJ, Ji AD</td>
</tr>
<tr>
<td>5456</td>
<td>Fatal left atrial air embolism as a complication of percutaneous transthoracic lung biopsy: A case report</td>
<td>Li YW, Chen C, Xu Y, Weng QP, Qian SX</td>
</tr>
<tr>
<td>5463</td>
<td>Diagnostic value of bone marrow cell morphology in visceral leishmaniasis-associated hemophagocytic syndrome: Two case reports</td>
<td>Shi SL, Zhao H, Zhou BJ, Ma MB, Li XJ, Xu J, Jiang HC</td>
</tr>
<tr>
<td>5470</td>
<td>Rare case of hepatocellular carcinoma metastasis to urinary bladder: A case report</td>
<td>Kim Y, Kim YS, Yoo JJ, Kim SG, Chin S, Moon A</td>
</tr>
<tr>
<td>5479</td>
<td>Osteotomy combined with the trephine technique for invisible implant fracture: A case report</td>
<td>Chen LW, Wang M, Xia HB, Chen D</td>
</tr>
<tr>
<td>5487</td>
<td>Clinical diagnosis, treatment, and medical identification of specific pulmonary infection in naval pilots: Four case reports</td>
<td>Zeng J, Zhao GL, Yi JC, Liu DD, Jiang YQ, Lu X, Liu YB, Xue F, Dong J</td>
</tr>
<tr>
<td>5502</td>
<td>Mixed large and small cell neuroendocrine carcinoma of the stomach: A case report and review of literature</td>
<td>Li ZF, Lu HZ, Chen YT, Bai XF, Wang TB, Fei H, Zhao DB</td>
</tr>
</tbody>
</table>

**LETTER TO THE EDITOR**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>5510</td>
<td>Pleural involvement in cryptococcal infection</td>
<td>Georgakopoulou VE, Damakos C, Sklapani P, Trakas N, Gkoufa A</td>
</tr>
<tr>
<td>5515</td>
<td>Electroconvulsive therapy plays an irreplaceable role in treatment of major depressive disorder</td>
<td>Ma ML, He LP</td>
</tr>
</tbody>
</table>
ABOUT COVER
Editorial Board Member of World Journal of Clinical Cases, Shivanshu Misra, MBBS, MCh, MS, Assistant Professor, Surgeon, Department of Minimal Access and Bariatric Surgery, Shivani Hospital and IVF, Kanpur 208005, Uttar Pradesh, India. shivanshu_medico@rediffmail.com

AIMS AND SCOPE
The primary aim of World Journal of Clinical Cases (WJCC, World J Clin Cases) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING
The WJCC is now indexed in Science Citation Index Expanded (also known as SciSearch®), Journal Citation Reports/Science Edition, Scopus, PubMed, and PubMed Central. The 2021 Edition of Journal Citation Reports® cites the 2020 impact factor (IF) for WJCC as 1.337; IF without journal self cites: 1.301; 5-year IF: 1.742; Journal Citation Indicator: 0.33; Ranking: 119 among 169 journals in medicine, general and internal; and Quartile category: Q3. The WJCC's CiteScore for 2020 is 0.8 and Scopus CiteScore rank 2020: General Medicine is 493/793.

RESPONSIBLE EDITORS FOR THIS ISSUE
Production Editor: Xu Guo; Production Department Director: Xiang La; Editorial Office Director: Jin-Lei Wang.
Renal papillary necrosis with urinary tract obstruction: A case report

Hong-Hong Pan, Yi-Jia Luo, Qing-Guo Zhu, Lie-Fu Ye

Abstract

BACKGROUND
Renal papillary necrosis (RPN) is a rare disease. It is difficult to distinguish RPN with urinary tract obstruction from upper urinary tract occupying lesions. We reported a case of RPN and made a definite diagnosis largely based upon its endoscopic characteristics.

CASE SUMMARY
A 75-year-old woman presented with right flank pain, visible hematuria and a body temperature greater than 39 °C. Laboratory investigations revealed leukocytosis with 12.7 × 10/L white blood cells and 93.6% neutrophils. Blood creatinine was 333 umol/L. Ultrasonography showed hydronephrosis of the right kidney and a right distal ureteric lesion. After urgent placement of right ureteral double J stent and treatment with antibiotics, the patient’s symptoms and the blood abnormalities improved rapidly. Computed tomography urography showed the presence of multiple occupying lesions in the right pelvis. The endoscopic ureteroscopy revealed that renal papillary necrosis and the subsequent migration of sloughed papillae into the upper ureter and calyces. The sloughed papillae appeared like “cottons”, which were whitish, soft, and irregularly-shaped without blood supply. In addition, the necrotic and sloughed renal papillae were removed by flexible ureteroscopy to prevent further obstruction. Pathological examination found that infarcted renal papillae were associated with inflammatory exudation. Three months after discharge, follow-up computed tomography urography showed no obvious lesions in the renal pelvis.

CONCLUSION
This case revealed the endoscopic features of RPN. In addition, flexible ureteroscopy proves to be vital in diagnosis and treatment of RPN.

Key Words: Renal papillary necrosis; Endoscopic sign; Ureteroscopy; The upper urinary tract obstruction; Infarcted renal papillae.
We reported a case of urogenital sepsis and urinary obstruction. Imaging examination indicated the upper urinary tract occupying lesions, which could not exclude the possibility of malignant tumor. Further flexible ureteroscopy revealed the rare disease of renal papillary necrosis. The endoscopic examination found that necrotic renal papillae sloughed and were floating as "cottons" in the renal pelvis. They were soft, friable, whitish and irregularly-shaped without blood supply as "cottons". The migration of the necrotic renal papilla to the ureter lead to urinary tract obstruction and urogenic sepsis. So far, the endoscopic sign of renal papillary necrosis has not been reported. The report revealed the imaging and endoscopic characteristics of renal papillary necrosis, which helped the clinicians to distinguish renal papillary necrosis from malignant tumor.

INTRODUCTION
Renal papillary necrosis (RPN) is a rare entity, which is defined as ischemic necrosis of the papilla in the medulla of the kidneys. It is recognized that a variety of etiological factors, such as analgesic nephropathy, diabetes mellitus, urinary obstruction and sickle cell hemoglobinopathy, may cause papillary necrosis[1]. It causes necrosis, detachment, and expulsion of the papilla into the urine, which leads to ureteric obstruction presenting with renal colic, acute kidney injury or urinary tract infection [2]. Ultrasound and computerized tomography imaging are relatively insensitive in detecting complicated papillary necrosis, especially when the papillary necrosis is complicated by the upper urinary tract occupying lesions.

This study reported a patient with an infected and obstructed kidney and the upper urinary tract-occupying lesions. We diagnosed renal papilla necrosis with flexible ureteroscopy, which revealed endoscopic characteristics of the disease so as to avoid unnecessary nephrectomy.

CASE PRESENTATION

Chief complaints
A 75-year-old woman presented with right flank pain, visible hematuria, and a fever (body temperature higher than 39 °C) in the emergency unit.

History of present illness
The patient had a temperature of up to 39 °C, and was admitted to the hospital as an emergency because antibiotic treatment was not effective in the clinic.

History of past illness
Her medical history included poorly controlled type 2 diabetes mellitus (hemoglobin A1c 80 mmol/mol or 0.23 g/dL glucose levels).

Personal and family history
Personal history and family history were not special.

Physical examination
Physical examination found percussion pain in the right kidney area.

Laboratory examinations
Laboratory investigations showed a leukocytosis of 12.7 × 10^9/L with 93.6% neutrophils. Urine routine test was positive for leukocyte and glucose. Her renal function was abnormal since his serum creatinine reached a level of 333 μmol/L.
**Imaging examinations**
Ultrasonography revealed hydronephrosis of the right kidney and right distal ureteric lesions (Figure 1).

**Initial treatment**
Given the presence of severe urinary tract infection and right hydronephrosis, urgent placement of a right ureteral double J stent was made. After urgent decompression of the upper urinary tract, antibiotics treatment, and diabetic control, the patient’s symptoms improved rapidly and her blood test results including complete blood count and renal function returned to normal.

**Further examinations**
Subsequent computed tomography urography (CTU) showed inflammatory exudation around the right kidney, and lesions of different sizes were found to be occupying the right renal calyces. The lesions were surrounded almost completely by the contrast during the excretory phase (Figure 2A and B). Punctate thickening was also observed in the right distal ureter. Flexible ureteroscopy was performed in order to make a definitive diagnosis of upper urinary tract lesions. We found that inflammatory hyperemia existed in the mucosa of the renal pelvis. There were numerous occupying lesions floating in the calyces and the upper ureter. The floating materials were whitish and irregularly-shaped without blood supply. Moreover, they appeared like soft and friable cottons. Some partial necrotic renal papillae were sloughing and attached to renal medulla by pedicles (Figure 3A). Meanwhile, some necrotic renal papillae have been sloughed completely, looked like cottons, and floated inside the renal calyces (Figure 3B). The lesion in the right distal ureter suggested by initial ultrasound examination was not found during the flexible ureteroscopy.

---

**FINAL DIAGNOSIS**
The flexible ureteroscopy confirmed renal papillary necrosis.

**TREATMENT**
We removed the necrotic and sloughed renal papillae by flexible ureteroscopy to prevent further obstruction. Pathological examination confirmed infarcted renal papilla accompanied with inflammatory exudations (Figure 4A and B).

**OUTCOME AND FOLLOW-UP**
Three months after discharge, follow-up CTU showed no obvious lesions in the renal pelvis.

**DISCUSSION**
The acute obstruction of this patient's right kidney was probably caused by the sloughed renal papillae, as the ultrasonography legibly showed the right distal ureteric lesion. However, the ureteral lesion was not found during the ureteroscopy, which might have been excreted through the ureter since it was soft and friable. In addition, the ureteroscopy revealed that multiple necrotic and splintered renal papillae filled pelvis and the upper ureter, which confirmed the diagnosis of RPN. Fadel et al.[2] reported a case of papillary necrosis that was with subsequent migration of a sloughed papilla into the ureteric orifice.

Renal papillary necrosis is a clinicopathological entity where any or all of the papillae undergo selective necrosis. It is typically thought to be caused by diabetes mellitus and urinary tract infection. The renal papillae are considered to be anatomically vulnerable to ischemia, which may be seen in diabetes-associated vascular disorder, or interstitial edema secondary to infection[1]. There have been some cases, in which rapid deterioration occurred and even progressed to death[3]. The early treatment of RPN is important for improving prognosis and reducing morbidity. It is essential to control the underlying problem, such as diabetes, infection, dehydration[4]. In cases of an infected and obstructed kidney, emergency decompression is imperative, and direct visualization may be required to allow for removal of the sloughed papilla and for relief of obstruction by emergency stent placement[2].

Renal papillary necrosis secondary to pyelonephritis may lead to inflammatory hyperemia in the mucosa of the renal pelvis. However, renal papillary necrosis per se leads to necrosis and even shedding of the renal papillae as seen in flexible ureteroscopy. In addition, the necrotic structures of the renal papillae appear whitish and irregularly-shaped without blood supply, which should be differentiated from the upper urinary tract lesions such as renal pelvic carcinoma.
In the past, most researches on the RPN were a series of cases and works on radiological images on computerized tomography and magnetic resonance\cite{5}. There were classic images described in the computerized tomography urography, such as ball in tee, lobster claw, signet ring or clubbed calyx to diagnosis RPN\cite{1,6,7}. However, severe renal insufficiency resulting from ureteral obstruction was the contraindication of CTU since the intravascular contrast agents may potentially be nephrotoxic. However, at the same situation, this endoscopic examination does not have such a safety concern, The endoscopic examination is also great for the patient with upper urinary tract-occupying lesions since it may be used to rule out malignant tumor. In this case, this examination confirmed the diagnosis of RPN, and prevented unnecessary nephrectomy. The most important endoscopic feature of RPN was sloughed renal papillae appearing like the floating “cottons” in the pelvis. The sloughed papillae were soft, friable, whitish and irregularly-shaped without blood supply. So far, the endoscopic features of RPN have not been reported. The report revealed the imaging, clinical and endoscopic characteristics of PRN, which would help the clinicians distinguish RPN from the upper urinary tract-occupying lesions. In addition, the necrotic and sloughed renal papillae could be removed by flexible ureteroscopy so as to prevent further obstruction.

CONCLUSION

In summary, renal papillary necrosis and subsequent migration of a sloughed papilla into a ureter may occur in patients with the upper urinary tract-occupying lesions and urosepsis. The endoscopic ureteroscopy can identify renal papillary necrosis and remove the necrotic renal papilla to avoid further
Figure 3 The endoscopic sign of renal papillary necrosis. A: Black arrows showed the part of this renal papilla undergoing selective necrosis, which was sloughing with pedicles inside the calyces; B: White arrows showed the necrotic papilla floating as cottons in the calyces, which were characterized by whitish structures, soft and friable.

Figure 4 Histopathological findings, fragments consisting of necrotic material. Infarcted renal papilla was accompanied with inflammatory exudations. No malignancy was identified. A: HE stain, 20 ×; B: HE stain, 40 ×.

FOOTNOTES

Author contributions: Ye LF and Pan HH conceived the work; Pan HH, Luo YJ and Zhu QG conducted the work and acquired the data; Ye LF conducted the revision; all authors treated and provided care for the patient; all authors reviewed the manuscript.

Informed consent statement: Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Conflict-of-interest statement: The authors declare that they have no competing interests.

CARE Checklist (2016) statement: The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-
REFERENCES


