



Ureteral metastasis: An uncommon finding of metastatic disease in primary neoplasms. Literature review and our center's case series report

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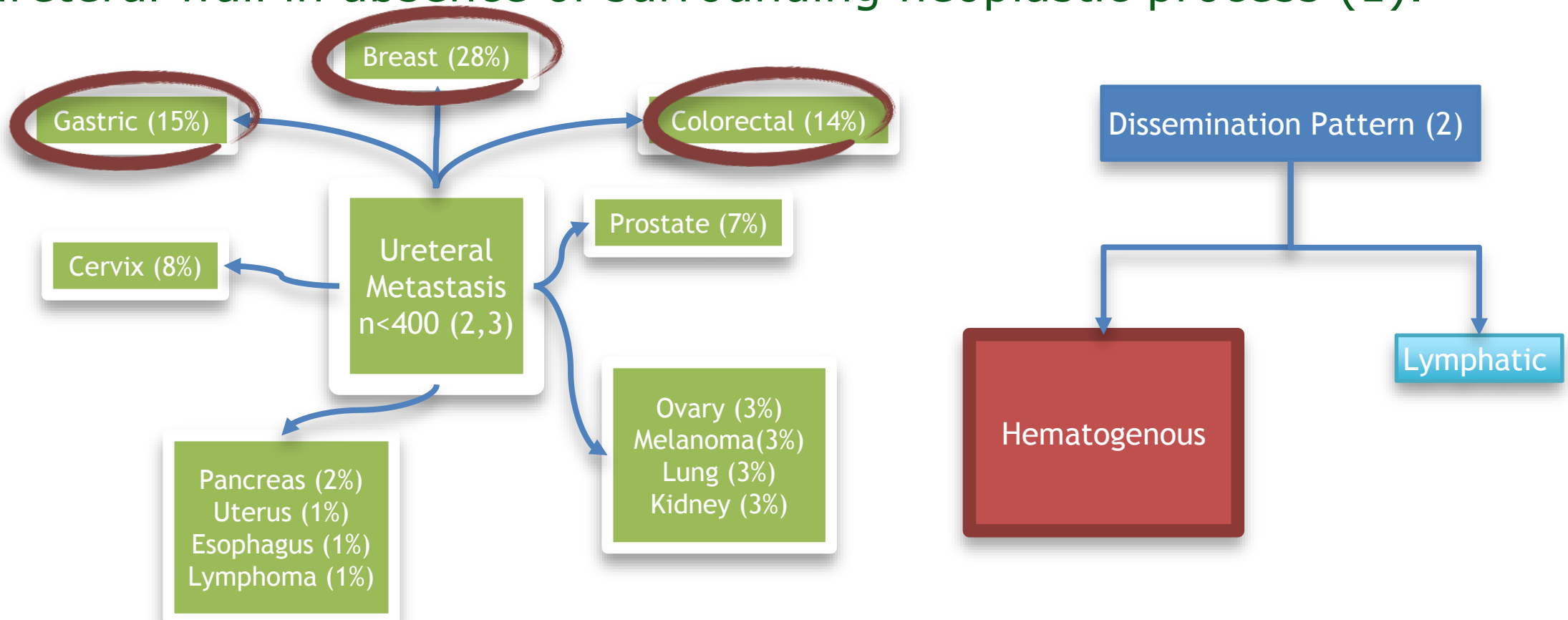
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Objectives

- To review the literature on ureteral metastasis
- To show the radiological manifestations of ureteral metastasis
- To describe our case series

Introduction

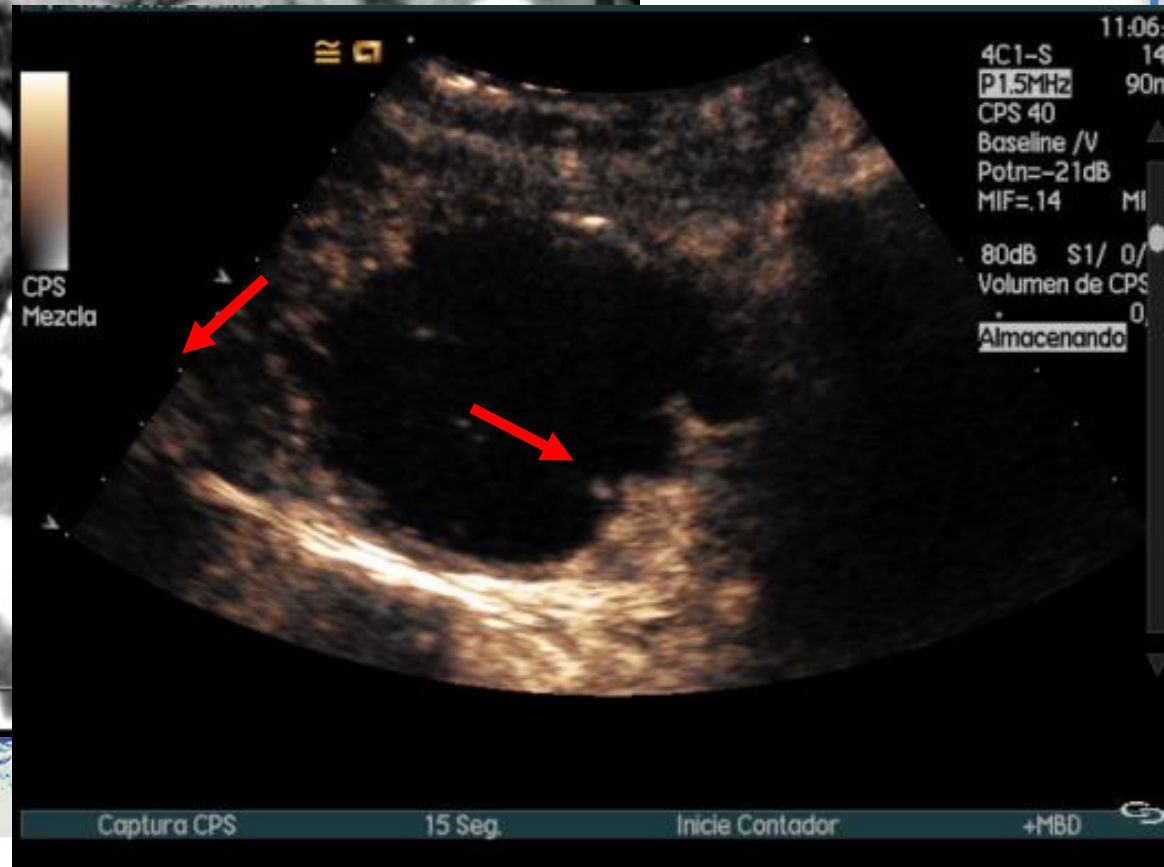
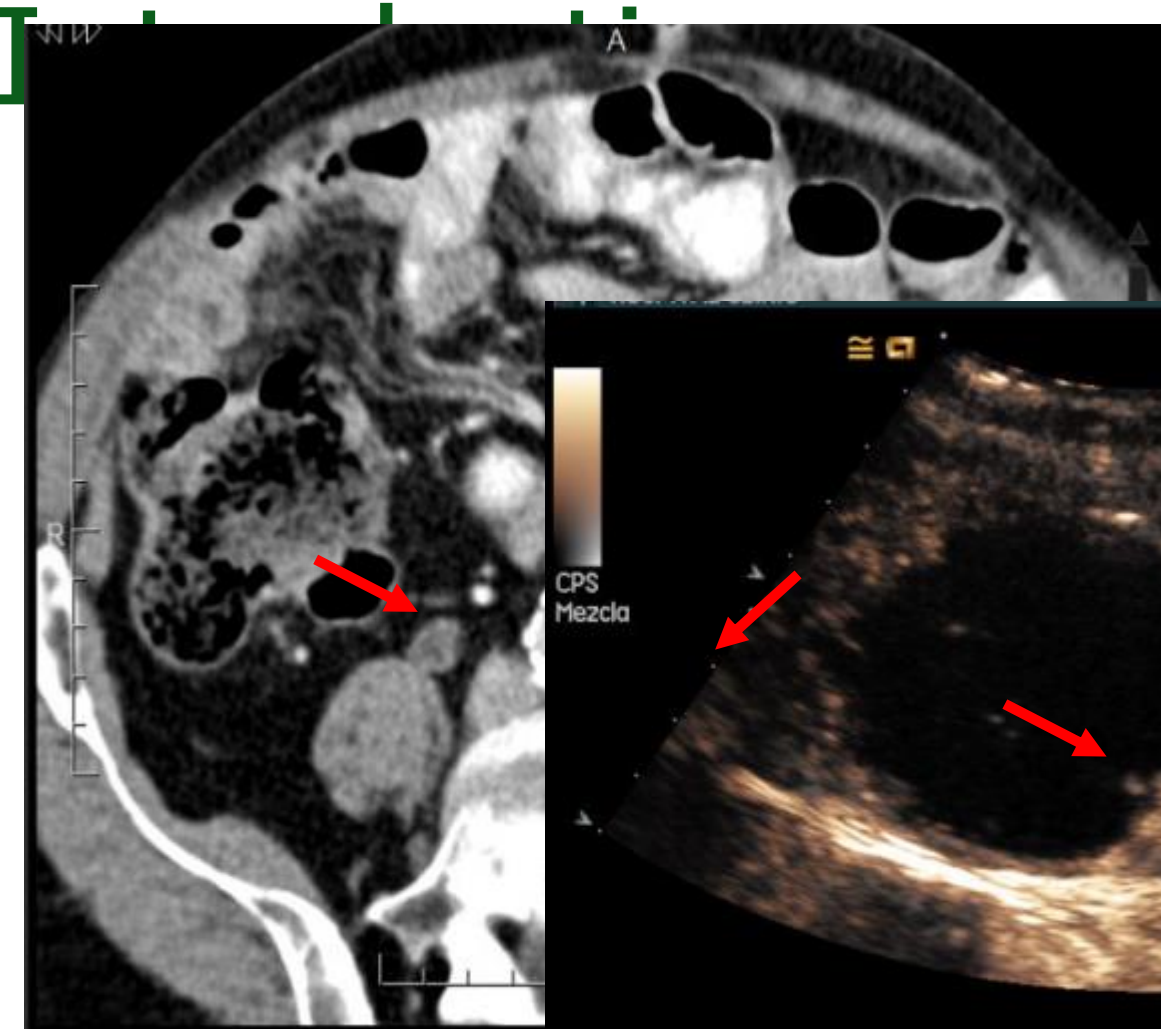
Ureteral metastasis is defined as the presence of metastatic cells in the ureteral wall in absence of surrounding neoplastic process (1).



(1) Pressan D, Ehrich L. Metastatic tumors of the ureter J. Urol, 1948;59:312-325

(2) Arvind NK, Singh O, Gupta S, Ali Q. Ureteral Metastasis as the Presenting Manifestation of Pancreatic Carcinoma. Reviews in Urology. 2013;15(3):124-130.

(3) Fitch WP, Robinson JR, Radwin HM. Metastatic carcinoma of the ureter. Arch Surg. 1976;111:874-876.



Mostly Asymptomatic

In the past

Autopsy

Ureteral nodules

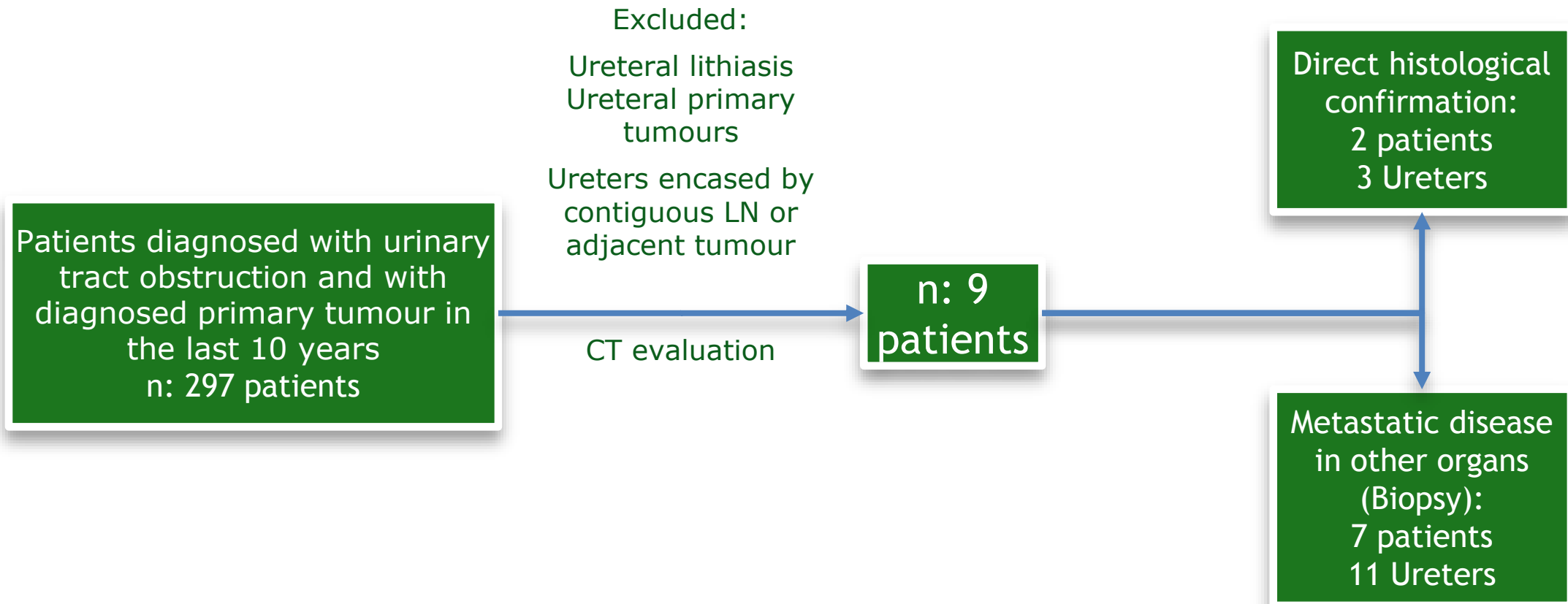
peritumoral infiltration

Ureteral nodules with or w/o periureteral infiltration

Metastasis of follicular lymphoma



Materials and methods



Results

Sample Size (n)	9 patients
Average Age (years, range)	73 (55 - 89)
Sex (Male/Female)	7/2
Primary Tumour	Gastric adenocarcinoma (5) Prostate adenocarcinoma (2) Invasive lobular breast carcinoma (1) Follicular Lymphoma (1)
Symptoms at the moment of metastasis diagnosis (yes/no)	3/6
Metastatic disease in other locations (yes/no)	9/0
Cure/Progression	1/8
Death (yes/no)	6/3

Results

Sample Size (n)	14 Ureters
Urine Cytology	Negative in all cases
Nephroureteroscopy	Negative in all cases
Unilateral/Bilateral	4/5
Affected ureters (n)	14 (5 R / 9 L)
Affected ureteral portion	Mid: 9 Proximal: 3 Distal: 2
Radiologic manifestation	Wall thickening without periureteral infiltration: 8 Wall thickening with periureteral infiltration: 4 Ureteral nodule with periureteral infiltration: 2 Ureteral nodule without periureteral infiltration 0

Metastasis of gastric carcinoma



Limitations

- Our case series is small.
- Direct histologic confirmation of the lesion.

Conclusions

- Ureteral thickening, specially in the mid ureter, with or without periureteral infiltration associated to negative cytology and nephroureteroscopy in patients with cancer history (specially gastric, prostate or breast carcinoma) must be viewed as a red flag and metastatic disease in other locations should be looked for.
- Ureteral metastatic disease is an ominous prognostic sign.



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