



## Editorial Comment: Classification of the renal papillary abnormalities by flexible ureteroscopy: evaluation of the 2016 version and update

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### COMMENT

Endoscopic view of the collecting system provides the chance to observe many abnormalities that could be correlated to urinary stone formation. Papillary calculi result from subepithelial lesions (1). Therefore, the observation of papillary abnormalities could help to understand lithogenesis and eventually help the management of patient's treatment.

Almeras et al. reported the endoscopic evaluation of renal papillae during 88 consecutive flexible ureteroscopies based on the 2016 proposed classification (2). This classification was inspired on the oncologic TNM classification. It included stone description (Sx), number and type of papillary abnormality (nPx) and the amount of Randall's plaque (Rx) (3). The present study updated the former classification to new SxnPxDrx/i/px, including mixed type of stone, excluding subepithelial stones, including papillary abnormalities of medullary sponge kidney and including description of deposits (D) of the amount of Randall's plaque (r), intrapapillary deposits (i) and intraductal plugs (p). Main findings were that 83% of the patients had Randall plaques and only 4.5% of the patients had no abnormalities. Erosions were pre-

sent in 55.7%, anchored stones in 30.7%, intraductal crystallization in 15.9% and extrophic papillae in 8%. The description of the renal papillae showed clinical importance because it was correlated to the diagnosis of a metabolic lithogenesis. High amount of Randall's plaque was associated with dark anchored stones (Sa1). Calcium phosphate stones were correlated to intraductal crystallization (Sc) and hypercalciuria was higher in light anchored stones (Sa2) than dark anchored stones (Sa1).

## CONFLICT OF INTEREST

None declared.

## REFERENCES

1. Randall A. The origin and growth of renal calculi. *Ann Surg.* 1937;105:1009-27.
2. Almeras C, Daudon M, Estrade V, Gautier JR, Traxer O, Meria P. Classification of the renal papillary abnormalities by flexible ureteroscopy: evaluation of the 2016 version and update. *World J Urol.* 2021;39:177-85.
3. Almeras C, Daudon M, Ploussard G, Gautier JR, Traxer O, Meria P. Endoscopic description of renal papillary abnormalities in stone disease by flexible ureteroscopy: a proposed classification of severity and type. *World J Urol.* 2016;34:1575-82.

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## ARTICLE INFO



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