



## African Journal of Urology

Official journal of the Pan African Urological Surgeon's Association  
web page of the journal

[www.ees.elsevier.com/afju](http://www.ees.elsevier.com/afju)  
[www.sciencedirect.com](http://www.sciencedirect.com)



### Uro-oncology

Original article

# Clinical and pathological features of papillary renal cell carcinoma and prognostic value of its type-1 and type-2 subtypes



M.M. Gargouri\*, Y. Ayari, M. Ben Chehida, Y. Ouanes, A. Sellami, S. Ben Rhouma, M. Chelif, Y. Nouira

Department of Urology, La Rabta University Hospital, Tunis, Tunisia

Received 13 June 2015; received in revised form 3 August 2015; accepted 15 August 2015

Available online 21 August 2016

#### KEYWORDS

Kidney;  
Papillary carcinoma;  
Pathology;  
Surgery;  
Prognosis

#### Abstract

**Introduction and objectives:** Papillary renal cell carcinoma (PRCC) accounts for 10–15% of renal tumors in adults. This type of tumor contains more than 75% of tubulo-papillary structures and is divided histologically into two subtypes. The distinction between these two subtypes is essential because of their prognostic value. The aim of this study was to compare the prognostic significance of the PRCC subtypes.

**Patients and methods:** This retrospective study included 34 patients operated for PRCC between January 2000 and December 2012. Clinical data including presenting symptoms, preoperative findings, pathological features, treatment and patient outcome were taken from the patients' medical records as well as from radiological analysis based on computed tomography (CT) findings. A second analysis of the histological slides was made in doubtful cases to clarify the histological subtype.

**Results:** PRCC was found in 12.7% of 267 patients operated for renal tumors during the study period. The patients' mean age was 62.4 years with a male predominance (sex ratio 3.6). All tumors were unilateral with a mean size of 6.9 cm. There was no clinical or radiological sign suggestive of this histological type, however, 80% of the tumors had an enhancement <40 HU. Treatment consisted of radical nephrectomy and nephron-sparing surgery in 74% and 26% of the cases, respectively. We found 20 type-1 tumors and 14 type-2 tumors. The 5-year overall and disease-free survival rates were 82% and 90% for type-1 and 42% and 54% for type-2 tumors, respectively.

\* Corresponding author.

E-mail addresses: [gargourimourad@yahoo.fr](mailto:gargourimourad@yahoo.fr) (M.M. Gargouri), [yassinea89@gmail.com](mailto:yassinea89@gmail.com) (Y. Ayari), [dalibenchahida@yahoo.fr](mailto:dalibenchahida@yahoo.fr) (M. Ben Chehida), [yassineouanes@gmail.com](mailto:yassineouanes@gmail.com) (Y. Ouanes), [sellamiahmed1@yahoo.fr](mailto:sellamiahmed1@yahoo.fr) (A. Sellami), [sbenrhouma@yahoo.fr](mailto:sbenrhouma@yahoo.fr) (S. Ben Rhouma), [chlifmed@gmail.com](mailto:chlifmed@gmail.com) (M. Chelif), [nouirayassine@gmail.com](mailto:nouirayassine@gmail.com) (Y. Nouira).

Peer review under responsibility of Pan African Urological Surgeons' Association.

<http://dx.doi.org/10.1016/j.afju.2015.08.003>

1110-5704/© 2016 Pan African Urological Surgeons' Association. Production and hosting by Elsevier B.V. All rights reserved.

**Conclusion:** PRCC represents the second most common histological type of renal cancer. It has no clinical or radiological predicting signs, although CT enhancement is usually <40 HU. Distinguishing between the two subtypes is essential because of their prognostic value.

© 2016 Pan African Urological Surgeons' Association. Production and hosting by Elsevier B.V. All rights reserved.

## Introduction

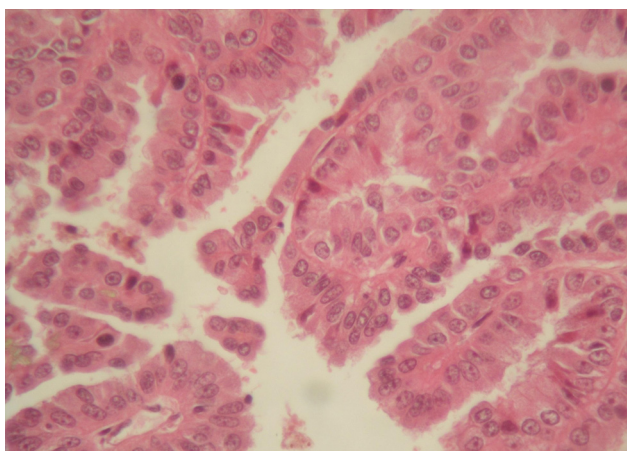
Papillary renal cell carcinoma (PRCC) accounts for 10–15% of renal tumors in adults. This type of tumor contains more than 75% of tubulo-papillary structures [1]. PRCC represents the second most common histological type after clear cell carcinoma (CCC). In 1997, Delahunt and Eble [2] described type-1 and type-2 subtypes of PRCC according to their cytological characteristics. This subdivision is important because of the prognostic value of each subtype [1–5].

In the present study covering a period of 13 years, we reviewed 34 cases of PRCC operated between January 2000 and December 2012 and performed a long-term survival analysis comparing type-1 and type-2 PRCC to validate this subclassification as a prognostic factor.

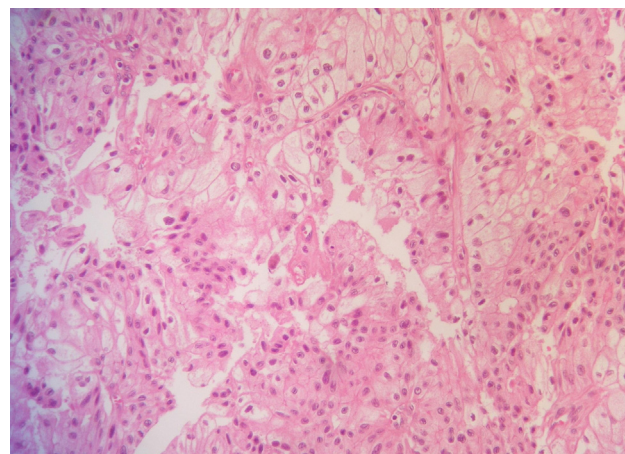
## Patients and methods

During the study period, 34/267 patients (12.7%) operated for renal cancer at our institution were diagnosed with PRCC. Data were obtained from the patients' medical records. The presenting symptoms, preoperative findings, pathological features, treatment and patient outcome were analyzed, and a comparative study of type-1 and type-2 PRCC was carried out.

The tumor stage was determined according to the 2009 TNM classification. A second analysis of the histological slides was made in doubtful cases to clarify the histological subtype. The tumor was classified as type-1 PRCC when it showed papillae covered with a single or double layer of small cuboid cells with basophilic cytoplasm (Fig. 1). Type-2 PRCC contains papillae covered with large eosinophilic cells arranged in a pseudo stratified manner (Fig. 2).



**Figure 1** Type 1 PRCC tumors showing papillae covered with small cuboid cells with basophilic cytoplasm.



**Figure 2** Type 2 PRCC tumors containing papillae covered with large eosinophilic cells arranged in a pseudo stratified manner.

The statistical tests used were the Chi-square test to compare the qualitative variables and student's *t*-test for continuous variables, while the survival curves were derived from Kaplan–Meier estimates. A log-rank test was used to compare the survival rates of both groups. A *p* value <0.05 was considered as statistically significant. The statistical analysis was carried out using the SPSS 10.0 program.

## Results

PRCC was found in 34/267 patients (12.7%) that underwent surgery for renal cancer. It represented the second most common histological type after CCC (75%). The patient cohort consisted of 25 men (74%) and 7 women (26%) with a sex ratio of 3.6. The patients' mean age was 62.4 (range 24–86) years.

The main risk factors were hypertension and diabetes mellitus, noted in 32% and 18%, respectively. Hemodialysis for end-stage renal disease was found in one case (3%).

The main presenting symptoms were flank pain ( $n=22$ ) and hematuria ( $n=12$ ). The tumor was discovered incidentally in 9 patients (27%). Most incidental cases were diagnosed after the second half of the study period (8% before 2005 and 44% after that year).

The tumors were located in the right kidney in 52% and in the left kidney in 48% of the patients. All tumors were unilateral, and multifocality was noted in one case (3%). The median tumor size was 6.9 cm (range 1.9–24) cm.

Computer tomography (CT) did not show any specificity regarding this histological type, however, enhancement was low (less than 40 HU) in 80% of the cases.

Download English Version:

<https://daneshyari.com/en/article/4267489>

Download Persian Version:

<https://daneshyari.com/article/4267489>

[Daneshyari.com](https://daneshyari.com)