



THE COLLEGE OF SURGEONS OF HONG KONG

RR9254

REPORT ON RESEARCH PROJECT

★ No HANDWRITTEN research report submission will be accepted.

★ Please fill in ALL the blanks in BLOCK LETTERS. Missing any items may lead to failure of processing your research report.

SECTION A : PERSONAL PARTICULARS OF HST TRAINEE

Name of Trainee: NG CHI YUEN BST HST Specialty: UROLOGY
 Commencing date of Training: 1/1/2017 Principal Hospital: PMH
 Current Training Period : 1/7/2017 to 31/12/2017 Training Hospital: PMH/CMC

SECTION B : RESEARCH PROJECT

Title: OUTCOMES OF PATIENTS WITH LOCALLY ADVANCED RENAL CELL CARCINOMA AFTER RADICAL NEPHRECTOMY: A 5-YEAR MULTI-CENTRE REVIEW OF RECURRENCE AND SURVIVAL PATTERN

Principal investigator: NG CHI YUEN
 Co-investigators: T. Chan, R. Chu, J. Wong, C. Cheng, E. Wong, F. Cheung

Duration of project: 6 MONTHS
 Current Status: Ongoing Completed
 Type of Research: Case Report Literature Review

Others (Please Specify) _____

Have you ever submitted this research project (Ongoing) with the same title before? Yes No

Role of trainee (%):	
Conceptualization & design	<u>80</u>
Conduct of Study	<u>80</u>
Data collection	<u>30</u>
Data analysis	<u>100</u>
Abstract / Manuscript writing up	<u>100</u>
<input checked="" type="checkbox"/> Clinical Study <input type="checkbox"/> Laboratory Study	

Abstract (The content should include Background, Aim of study, Method, Result and Conclusion.)

*You are NOT required to include the result and conclusion in the abstract if your project is still ongoing.

*A key reference list should be included in your research report. The total number of references should be no more than 5.

Background:

Locally advanced renal cell carcinoma (RCC), defined as T3-4N0M0, constitutes 25% of the renal cell carcinoma patients. Surgical resection is the mainstay of treatment. The recurrence rate despite radical resection remains high.

Aim of study:

To review the outcomes of locally advanced RCC and to identify clinico-pathological predictors for recurrence.

Method:

Patients who underwent radical nephrectomy for locally advanced RCC in five centres (Kwong Wah Hospital, Pamela Youde Nethersole Hospital, Prince of Wales Hospital, Princess Margaret Hospital, and Tuen Mun Hospital) from the January 2010 to December 2014 were included. Demographic, clinical and pathological parameters were retrospectively reviewed.

Results:

Of the 561 patients who underwent nephrectomy, 81 patients were found to have locally advanced disease. During the mean follow-up of 50 months, recurrence was found in 23 patients (30%), all of which were distant metastases. According to T stage, 27% of T3a; 50% of T3b and T3c; and 33% of T4 patients developed distant recurrences. 23% of the recurrences involved multiple organs. Mean time to recurrence was 20 months. Clinical presentation of haematuria, presence of sarcomatoid change and T stage were independent predictors for recurrence (p = 0.016, p<0.01, and p=0.012 respectively). Twenty-two patients died from RCC, with the median time from recurrence to death being 10 months. Recurrence-free survival was 93%, 85%, and 75% at 1, 2 and 5 years. Significantly higher chance of mortality is noted in tumours with sarcomatous differentiation (p= 0.016).

Conclusion:

This multi-centre study examined the recurrence and survival pattern of patient with locally advanced RCC. Presence of clinical symptom of hematuria and presence of sarcomatoid change were associated with higher chance of recurrence. The variables may serve as predictive tools to identify patients at high risk of recurrence or cancer related mortality who may warrant more stringent surveillance protocol.

Reference:

1. Capitanio, U., et al. A critical assessment of the prognostic value of clear cell, papillary and chromophobe histological subtypes in renal cell carcinoma: a population-based study. BJU Int, 2009. 103: 1496.
2. Keegan, K.A., et al. Histopathology of surgically treated renal cell carcinoma: survival differences by subtype and stage. J Urol, 2012. 188: 391.

SECTION C : COMMENTS FROM TRAINEE / SUPERVISOR

(Attach separate document if necessary)

The study highlights risk factors for recurrence after radical nephrectomy for advanced renal cell carcinoma, which provides valuable information for patient counselling as well as disease management. The multi-centre database shall be continuously updated for future research.

Name of Trainee: NG CHI YUEN

Date: 28.12.17

Name of Supervisor: Dr PL LIU

Date: 31/2018

Revised on Jan 2016