



Chest follow-up schedule of surgically resected renal cell carcinoma should be differentiated according to histological subtype



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Introduction and objectives

European Association of Urology, National Comprehensive Cancer Network and American Urological Association provide follow-up guidelines for surgically treated Renal Cell Carcinoma (RCC). However these guidelines are not supported by good quality evidence. The potential exposure of the patients (pts) to the risks connected to unnecessary ionizing radiations is an important factor to consider. Aim of this study was to evaluate the oncological outcomes in a large cohort of pts to better tailor follow-up schedules of pts that underwent surgery for RCC.

Results

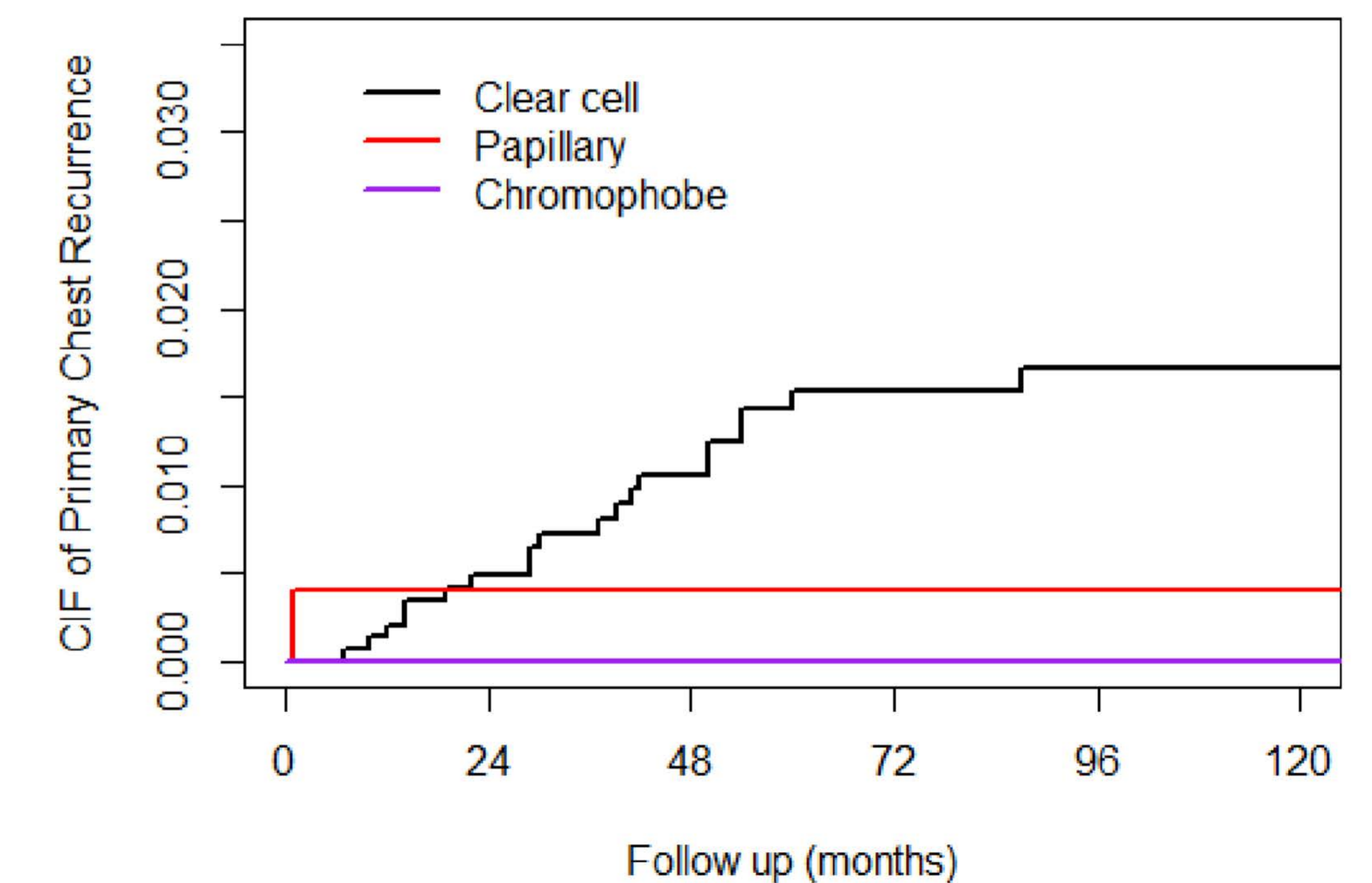
Median age of the pts was 60 years (53-70). 1174 pts underwent partial nephrectomy and 758 radical nephrectomy. Histological subtype of the specimens were: 1491 Clear Cell RCC (ccRCC), 244 papillary RCC (pRCC) and 197 chromophobe RCC (chRCC). Median follow-up was 90 months (36-125). 145 (7,5%) pts developed a recurrence. Site and rate of recurrences are reported in table 1. Statistical analysis identifies a significant difference in the incidence of all site recurrences among all histological subtypes ($P=0,0017$); significant statistical difference was observed also in the incidence of primary chest recurrences for all histological subtypes ($P=0,002$). In the chRCC subgroup no chest recurrences were observed. 20 pts with ccRCC have a chest recurrence, 13 of them more than 5 years from surgery.

Materials and Methods

We enrolled 1932 pts surgically treated for sporadic pT1 pN0, M0 RCC from 7 Italian Academic Centers with minimum follow-up of 6 months. The exclusion criteria were: high nuclear grade, presence of intratumoural necrosis, lymphovascular invasion, collecting system invasion, rare histological RCC subtype and positive surgical margin. Recurrences were classified in accordance to their location: abdomen, chest, multiple districts and other sites (including central nervous system, bone and skin).

Table 1: Location-specific recurrence stratified by RCC histologic subtype

Histology	Relapse Location, No. (%)			
	Abdomen	Chest	Other	Multiple district
Clear cell	60 (41,38%)	20 (13,79%)	31 (21,38%)	17 (11,72%)
Papillary	7 (4,83%)	1 (0,69%)	4 (2,76%)	1 (0,69%)
Chromophobe	3 (2,7%)	0	1 (0,69%)	0



Conclusions

According to our data currently guidelines for RCC surveillance potentially expose a considerable number of pts to unnecessary chest examinations. Furthermore concluding follow-up after 5 years could lead to lose many primary chest recurrences in pts with ccRCC. In conclusion chest follow-up schedules should be differentiated and tailored on the basis of histological subtype.