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Introdução e Objetivo

Renal tumors encompass diverse kidney growths. Recent advances led to the 2022 World Health Organization (WHO) reclassification of renal cell tumors, potentially impacting treatment and outcomes. Emerging molecular cancer types and immunostains refined "renal cell carcinoma (RCC) unclassified¹." Global unspecified RCC histology cases decreased. Eosinophilic cytoplasm is common in complex kidney tumors, distinguished by morphology, cytogenetics, and immunostains². The 2022 WHO Classification updated "eosinophilic tumors," adding new entities³. Pathologists and uro-oncology groups face the challenge of integrating this classification, involving ancillary tests, patient reclassification, and treatment adjustments⁴. Herein, we conducted a retrospective review of our institutional pathology database for renal cell tumors (i.e renal cell carcinoma and oncocytomas) before and after the 2022 WHO classification or renal cell tumor, to assess the impact of the new 2022 WHO classification of renal tumors on the routine of an university hospital service.

Método

Retrospective review study of our institutional pathology database for renal cell tumors (i.e: Renal cell carcinoma and oncocytoma) before and after the adoption of the 2022 WHO Classification of Kidney Tumors. We retrieve 238 nephrectomy specimens (partial or total) and selected 42 cases with renal cell tumors including renal cell carcinomas and oncocytomas. Descriptive statistics were summarized as median and standard-deviation for continuous variables. Nominal and ordinal variables were summarized as proportions. The data were analyzed with t tests, χ^2 , Fisher exact test and Pearson correlation.

Figuras

	Pre-2022 WHO Classification	Post-2022 WHO Classification
N (number of cases)	21	21
Male	12	14
Female	9	7
Age (mean) (years)	62,8(±12,55)	63,14(±13,81)
Tumor size (mean) (centimeters)	6,5(±2,96)	5,86(±3,71)
Eosinophilic Cells Neoplasm	2 (9,52%)	5 (23,81%)
Oncocytoma	1	1
Chromophobe Renal Cell Carcinoma	1	1
Other Renal Cell Carcinoma	17	15
Number of immunohistochemistry assays performed	4 (19,04%)	9 (42,85%)
Diagnosis Post-Immunohistochemistry		
Oncocytoma	1	1
Chromophobe Renal Cell Carcinoma	2 (50,00%)	5 (55,55%)
Other Renal Cell Carcinoma	1	3

Resultados

An increase in the number of diagnosed eosinophilic renal tumors can be observed prior to immunohistochemistry (n=21, 9,52% pre-2022 classification and 23,81% post-2022 classification). Additionally, there has been also an increase in the frequency of immunohistochemical analyses performed within the service (n=21, 19,04% pre-2022 classification and 42,85% post-2022 classification). Furthermore, among these immunohistochemical analyses, there has been noticed an increase in the number of diagnosed chromophobe tumors following the new 2022 classification (n=4, 50,00% pre-2022 classification and n=9, 55,55% post-2022 classification).

Conclusão

The number of diagnosed eosinophilic tumors has increased, as well as the number of immunohistochemical analyses performed within the hospital service. Furthermore, there has been a significant impact on the quantity of diagnosed Chromophobe Renal Cell Carcinoma following immunohistochemistry, demonstrating that it has been diagnosed more frequently after the adoption of the new 2022 classification. Thus, urologists, pathologists and oncologists must be aware of the new classification paradigm and its impact in the final diagnosis of eosinophilic morphology tumors.

Referências

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