Patients with a primary malignancy of an organ are predisposed to develop a second malignancy in another organ or system.\(^1\) This predisposition is attributable in most cases to the prior use of chemotherapeutic agents for the first primary malignancy, but may be related in some instances to shared genetic or environmental factors. Recently, a number of case reports and small case series have hypothesized an association between renal cell carcinoma (RCC), predominantly of the clear cell/conventional type and multiple myeloma (MM).\(^2-5\) This hypothesis has been confirmed in a large population-based study from the USA and the association is supposed to be bidirectional, pointing to shared risk factors.\(^6\) Patients with RCC have higher relative risk of developing MM during follow-up and vice versa. Padhi et al., describe in this issue of the journal, two cases of renal cell carcinoma and plasma cell myeloma: Coincidence or true association?
occurrence of MM in patients with prior RCC, treated with radical nephrectomy and radiotherapy.[7] Given the nature of the report, it is obvious that no association could be proved in these cases; nevertheless, these cases are an important contribution to the meager literature on this topic and will be immensely helpful in increasing the awareness among the concerned healthcare providers for such an occurrence. The tumors may represent coincidence of two not so uncommon tumors in elderly population or may show a true association. Only an analysis of a large population-based data can prove or refute this phenomenon, as has been done by Ojha et al.[6] Both their patients were male, which is concordant with the previously reported male preponderance for this unique concurrence of tumors. No laterality predilection is seen in this report, which consists of only two cases. The authors rightly point out that the diagnosis of MM following treatment of RCC will pose diagnostic challenges. However, these have not been addressed in detail in the present report. First thought should obviously have gone in favor of recurrence/metastasis of RCC, as both cases of RCC presented in advanced tumor, node, metastasis (TNM) stage (stage, pT3) and one of them was associated with lymphovascular invasion on pathological evaluation. On the contrary, the majority of the previously reported cases have presented with renal limited disease (TNM stage, pT1 or 2).

The cytokine hypothesis is also less likely in these cases, as the second tumors developed long after the removal of the first primary tumor.[8] However, the presence of very high levels of interleukin (IL)-6 in one case is interesting; this is not an obese patient and the possible source may be MM itself. It is interesting that both patients received radiotherapy for RCC, probably because of the advanced stage of RCCs, which is ordinarily not given in these tumors in most centers. This might be speculated to be causative in MM development, but typically the latent period is much longer in cases of radiation-induced malignancies.

There is no information on genetic analysis of the tumors in the report. Apparently, both renal tumors belong to the sporadic variety, rather than familial or syndromic in origin. A common genetic abnormality underlying this tumor co-occurrence is possible. However, no such common genetic abnormality has been described as yet in literature.

The important message from this report is that the clinicians should be mindful that these two malignancies can co-exist and an evaluation for MM is indicated when patients with resected RCC present with bony lytic lesions as their only “recurrence” site. Likewise, patients with known MM who present with a mass lesion in the kidney (particularly right kidney) should not be assumed to have plasmacytoma, and a renal biopsy should be performed to arrive at the correct diagnosis and institute appropriate therapy. The authors deserve congratulations on bringing such a rare combination of tumors to the attention of readers of this journal and increasing the awareness among the clinicians.

Muhammed Mubarak,
Department of Histopathology, Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Address for correspondence:
Dr. Muhammed Mubarak,
Department of Histopathology, Sindh Institute of Urology and Transplantation, Karachi-74200, Pakistan.
E-mail: drmubaraksiut@yahoo.com

REFERENCES
1. Youlden DR, Baade PD. The relative risk of second primary cancers in Queensland, Australia: a retrospective cohort study. BMC Cancer 2011;11:83.
2. Badros A, Karakunnel J, Dawson N. Multiple myeloma and renal cell carcinoma possible association. Leuk Lymphoma 2007;48:1662-4.
3. Choueiri TK, Baz RC, McFadden CM, Khassawneh M, Karam MA, Kelly M, et al. An association between renal cell carcinoma and multiple myeloma: A case series and clinical implications. BJU Int 2008;101:712-5.
4. Ozturk MA, Dane F, Kaygusuz I, Asmaz O, Uzay A, Bayik M, et al. Synchronous renal cell carcinoma and multiple myeloma: Report of two cases and review of the literature. J BUON 2009;14:511-4.
5. Bhandari MS, Mazumder A, Jagannath S, Vesole DH. Association between renal cell carcinoma and plasma cell dyscrasias: A case series of six patients. Clin Lymphoma Myeloma 2008;8:188-90.
6. Ojha RP, Evans EL, Fellini MJ, Singh KP, Thertulien R. The association between renal cell carcinoma and multiple myeloma: Insights from population-based data. BJU Int 2011;108:825-30.
7. Padhi S, Sahoo PK, Banerjee D, Ghosh RN. Renal cell carcinoma and plasma cell myeloma: unique association and clinical implications. Urol Ann 2014;6:252-6.
8. Sakai A, Kawano M, Kuramoto A. Interleukin-6 produced by renal-cell carcinoma cells and progression of multiple myeloma. N Engl J Med 1991;324:1893-4.