The patient was a 70-year-old man diagnosed with chronic lymphocytic leukemia (CLL), stage II. The patient was not currently receiving treatment, as the disease state was stable. However, he was later hospitalized for serum creatinine elevation, with a change from 1.5 mg/dL to 3.5 mg/dL within three months. On abdominal CT scans, the kidneys were normal in size. A needle biopsy of the kidney showed small lymphocytes infiltrating the interstitium with renal tubular atrophy (Picture 1, 2a). The lymphocytes were positive for B-cell markers on immunostaining, including CD20 (Picture 2b), CD79a and CD19 (Picture 2c) as well as CD5 (Picture 2d). However, these cells were negative for CD10 and cyclin D1. A bone marrow biopsy showed proliferation of tumor cells, as noted in the kidneys, and immunostaining subsequently yielded similar results. A diagnosis of tubulointerstitial nephritis due to renal infiltration with CLL cells was made, and the administration of concurrent chemotherapy with R-COP was started. Renal failure resulting from CLL cell infiltration is very rare. Among the reports published to date, deterioration of the renal function has been described to occur over a period of four to 36 months. In contrast, this process took only three months in the present case. In patients exhibiting deterioration of the renal function, prompt treatment is required, regardless of the disease stage (1, 2).
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References