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What's the diagnosis? The image shows a typical lesion (urate tophus) in a patient with hyperuricemia and urate nephropathy. There are multiple causes of hyperuricemia, including inherited disorders of purine metabolism, rapid turnover of purines in neoplasms, tumor lysis syndrome after chemotherapy, a purine-rich diet, or drugs. The most common complications of hyperuricemia include gouty arthritis and urate nephropathy. The characteristic finding in urate nephropathy is the presence of urate crystals in the inner medulla. The crystals are soluble in water, therefore they dissolve on routine histology processing and one can only appreciate outlines of needle-shaped, rectangular, or amorphous crystals with surrounding inflammatory response that consists of lymphocytes, macrophages, and sometimes multinucleated giant cells. This particular image shows outlines of dissolved amorphous crystals in the center, with surrounding mononuclear inflammatory cells, interstitial fibrosis, and tubular atrophy. (Image and text provided by Vanesa Bijol, MD, Brigham and Women's Hospital)