Not an ordinary UTI: A case of multiple myeloma stage III with no manifestation of bone pain, hypercalcemia or osteolytic lesions

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A 63-year-old AAM was admitted for dysuria and brown-colored urine of 2 weeks’ duration. He had no fever but had chills on and off. He reported a 23-lb weight loss and a decreased appetite; work-up on admission revealed anemia with a hemoglobin of 7.5 g/dL and renal insufficiency with creatinine as 1.67. He was treated with intravenous ceftriaxone which relieved his dysuria and discolored urine. However, his renal insufficiency persisted despite hydration and antibiotics. During his hospitalization, he was found to have worsening anemia, renal failure and weight loss. Due to his anemia and renal insufficiency, further work-up was initiated. With the constellation of renal insufficiency stage III along with macrocytic anemia, multiple myeloma was suspected by the medicine team. Serum protein electrophoresis showed M protein of 4.4 g/dl with IgG kappa and free lambda on serum immunofixation. IgG was 6911 mg/dL. Kappa light chains were 622.3 mg/L with kappa/lambda ratio of 3.66. Subsequently, bone marrow biopsy showed 90% cellularity with 70-80% plasma cells that were kappa-restricted. The following cytogenetics by FISH was reported: CCND1-IGH fusion, extra signal for chromosome 9 and loss of one copy of 13q14. Interestingly, the patient denied bone pain and had no lytic lesions on skeletal survey or MRI of the spine. He also did not have hypercalcemia, instead he actually has hypocalcemia with latest calcium level as 7.7 mg/dl. The patient was diagnosed with IgG kappa multiple myeloma, International Staging System Stage III, as his B2-microglobulin level is 10.3 mg/L. This case illustrates a patient diagnosed as IgG kappa multiple myeloma ISS Stage III presenting with no lytic bone lesions or hypercalcemia. Medical literature contains very few reports of multiple myeloma at stage III without hypercalcemia and lytic bone lesions. However, multiple myeloma patients can present with a variety of complaints and collateral signs. Interestingly, the International Myeloma Working Group had revised the definition of multiple myeloma to include 60% or more plasma cells in the bone marrow as one of the myeloma-defining events regardless of CRAB features.

Waist circumference to height ratio and coronary artery calcification

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Background: Many studies have demonstrated that waist-to-height ratio (WHtR) correlates with risk factors of coronary artery disease (CAD) better, than the body mass index (BMI). Coronary artery calcification (CAC) is an independent risk factor of atherosclerotic heart disease. However, the association between WHtR and coronary artery calcification score (CACS) still need to be elucidated.

Objective: The purpose of this study was to investigate the relationship between WHtR and CACS in healthy adults.

Method: A total of 1111 adults without histories of cardiovascular disease who visit the Health Promotion Center at the University Hospital were included in this study. All subjects were measured CACS by multi-detector computed tomography (MDCT).

Results: Participant with a CACS>0 had a greater WHtR than those with a CACS=0 (0.535±0.006 vs. 0.517±0.005, P<0.001). After adjusting for risk factors that affect CAC, WHtR represented an independent predictor of presence of CAC (odd ratio: 1.04, P=0.019, 95% CI: 1.01-1.07). Male sex and systolic blood pressure associated with a 2.53 and a 1.02-fold increase in CAC, respectively (P<0.001, 95% CI: 1.53-4.19; P=0.007, 95% CI: 1.01-1.04).

Conclusion: In this study of adults without heart disease, WHtR was an independent predictor of CAC. These results suggest that WHtR may be useful marker of CAD.