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General Medicine

AN UNUSUAL PRESENSTATION OF UPPER GASTRO INTESTINAL BLEED IN A CASE OF PLASMA CELL MYELOMA

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ABSTRACT Plasma cell myeloma also called as multiple myeloma most often presents with signs of bone lytic lesions, pancytopenia, recurrent infections and pathological fractures. The patient will be immunocompromised due to abnormal production of monoclonal immunoglobulin. Normal immunoglobulins are polyclonal, i.e., has a variety of heavy chains and each may be of kappa or lambda type. Here, plasma cells produce immunoglobulins of a single heavy and light chain, a monoclonal protein referred to as paraprotein. Some cases produce only light chain which appears in the urine as Bence Jones Proteins. We present a case of Negative Bence Jones Protein but Positive Monoclonal Protein in the background of UGI bleed.

KEYWORDS :

CASE REPORT:

A 58years old gentleman, a known case of type II diabetes mellitus for 25 years, with newly diagnosed hypertension presented himself with complaints of black tarry stools on and off for 2 years which was only during constipation. He also had history of increased frequency of micturition, lower back ache, breathlessness and easy fatigability for one month. One unit of PRBC was transfused before a month in view of anemia (Hb-10.2mg/dl). His Pulse rate was 98bpm, Respiratory rate was 22/minute, blood pressure was 150/90mmhg, blood sugar was 299mg/dl, temperature and O_2 saturation was within normal limits. On examination the patient was alert, active, conscious, oriented and afebrile. Pallor was present. Systemic examination was done which came out as normal.

Based on the above examination we came to a provisional diagnosis of UGI bleed in the background of anemia with low back pain. The patient was admitted for further evaluation. His blood reports showed anemia (Hb-9.9mg/dl) in spite of blood transfusion one month ago in an outside hospital. Platelet count was below normal limits (1.51lakhs/mm^3), ESR 20, Serum Potassium 2.6, Serum Albumin 1.69 and Globulin 6.31. AG reversal was found. In view of melena, the patient was kept nil per oral and started on IV fluids, IV Pan Infusion @8ml/hour. Stool Occult blood was sent which was negative. On the next day, patient had complaints of giddiness, tiredness and severe bone pain. Urine Bence Jones Protein sent which was found to be negative. Serum Calcium was 10.5, Serum Uric acid was 7.60. Both the values were above normal range. IV Pan Infusion was stopped and semi-solid diet was started. Tablet febuxostat 40mg OD was started in view of hyperuricemia. Syrup KCL 15ml HS was given in view of hypokalemia. Peripheral smear showed normocytic normochromic anemia with relative Lymphocytosis and mild thrombocytopenia. Few atypical cells were also noted. Plain CT whole Abdomen showed mild fatty Liver and multiple small lytic lesions in visualized dorsal, lumbar and sacral vertebrae, bilateral iliac bones and proximal femur. In view of increased bone pain Bone marrow aspiration and biopsy was done which showed diffused Plasmacytosis with many mature and immature form admixed with other marrow hematopoietic elements which lead us to the diagnosis of Multiple Myeloma. Protein Electrophoresis was also done which showed hypoalbminaemia with strong Monoclonal Band in gamma region. A FDG PET taken on the following day which showed Osteolytic lesions in the skull, all vertebrae, ribs, pelvic bones, bilateral humerus, scapula, clavicles, sternum and femur with hyper metabolic marrow lesion were suggestive of multiple myeloma thus confirming our diagnosis and patient was started on Chemotherapy initially with Thalidomide and Dexamethasone and patient is on follow up.

DISCUSSION:

However myeloma incidence is 6-7 cases / 1 lakh person, here is an atypical presentation where the patient presented with Upper GI bleed manifestations without any renal failure. Multiple myeloma is a malignant neoplasm of plasma cells with incidence of 6–7 cases per one lakh persons per year throughout the world[1]. It is largely a disease of older adults. The median age at diagnosis is 70 years. At initial diagnosis, approximately two-thirds of patients are older than 65 years and only one-third are over 75 years of age. Because of an aging population, the prevalence of MM is projected to rise substantially at an estimated 80% per year in the next 20 years. According to the recent development of novel therapeutic agents, enhancement in the safety of Autologous-hematopoietic Stem Cell Transplantation (ASCT) and the availability of hospice care have significantly improved survival in younger patients (65 years)[2].The stages of multiple myeloma goes as monoclonal gammopathy of uncertain significance(MGUS), which is diagnosed, usually incidentally, in 3–5% of persons over the age of 50 years, at this stage the disease is benign. The risk of progression to multiple myeloma is 1% in a year. The second/intermediate one being smoldering (asymptomatic) myeloma, which, in common with monoclonal gammopathy of uncertain significance, is characterized by the absence of organ damage (CRAB criteria)[1]. Then comes the symptomatic multiple myeloma, which is characterized by the CRAB criteria that is an indication of end organ disease in multiple myeloma. The characteristics of multiple myeloma according to International Myeloma Working Group is a follows

	% of plasma cells in bone marrow	M Protein	CRAB
1. MGUS	<10%	<30mg/dl	NO
2. Smoldering	>10%	>30mg/dl	NO
3. MM	>10%	Present in serum/Urine	Present

Crab Criteria:

Hypercalcemia (>11mg/dl), Renal insufficiency (>177mg/dl), Anemia (<10g/dl), Bone lesions (>1 lesion detected by radiography in CT or PET)[1] . In renal insufficiency unless there is rapid intervention, progressive and irreversible damage occurs, particularly interstitial fibrosis and tubular atrophy[6].

Investigations:

All patients with a suspected diagnosis of Multiple Myeloma should undergo a basic workup, which includes complete blood count; peripheral blood smear; complete chemistry panel, along with calcium and albumin; serum free light chain analysis (FLC); serum protein electrophoresis (SPEP) and urinalysis; 24-hour urine collection for electrophoresis (UPEP) and serum B2-microglobulin; and lactate dehydrogenase[5]. A FLC analysis is particularly useful for the diagnosis and monitoring of Multiple Myeloma, when only small amounts of M protein are secreted into the serum/urine or for non-secretory myeloma, as well as for light-chain-only myeloma. A bone marrow biopsy and aspirate should be performed in the diagnosis of MM to evaluate the bone marrow[4,5].

Treatment:

Asymptomatic patients with minimal disease can be observed without treatment since there is no advantage to early treatment of asymptomatic myeloma. Symptomatic patients may be treated with an initial regimen of thalidomide plus dexamethasone. Newer agents such

as bortelizumab and lenalidomide have improved the outcome. Bone marrow transplantation should be considered in young patients. Localized Radiotherapy can reduce bone pain and eradicate the tumor at the site of pathological fracture. Hypercalcemia is treated with hydration. The bisphosphonates (Pamidronate 900mg or Zoledronic acid 4mg intravenously monthly) reduce hypercalcemia and pathologic fractures. Blood transfusion must be done for anemia.

High-dose chemotherapy plus ASCT remains the standard of care for MM patients of physiologic age 70 years or younger who have adequate cardiac, pulmonary, hepatic and renal function[3]. Patients who are ineligible for transplant receive induction regimens dependent upon their frailty status[3].

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