Late diagnosis of multiple myeloma: a case report

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Abstract. Multiple myeloma is a challenging hematologic case to handle. Sometimes the disease is diagnosed too late for the patient and doctor. Therefore, careful approaches are needed to manage the patient. A 66-year-old man suffered from low back pain since one year before he came to the hospital. He was diagnosed multiple compression fractures by orthopedic and had undergone two surgeries in one year. Punched out lesions were in skull radiology and lumbar compression in lumbar MRI. After further investigation, plasmacytoma and M protein in urine electrophoresis were found. Significant improvement found after bortezomib and dexamethasone were given. Diagnosis and management of multiple myeloma is a challenge for a doctor. Systematically approach is needed for a patient with a recurrent fracture. Even a novel therapies are not widely available in our country. We reported a late diagnosis of multiple myeloma and had a significant improvement after bortezomib and dexamethasone therapy.

1. Introduction
Multiple myeloma is one of the most common hematologic cancer with a prevalence of 2:1 male predominance.[1] This disease occurs more common in African Americans and patients older than 40 years.[1,2] On the other hand, Japanese and Mexicans have a lower risk of this disease.[3,4] There is also an increased risk of developing multiple myeloma with elevated body mass index.[5,6] Most common sign and symptoms are elevated calcium, decreased renal function, anemia, and bone lesions.[1]

Long-term survival for patients with multiple myeloma was very rare until recently. Only a few centers reported long-term survival more than 60% using aggressive treatment.[2] Prolonged delay of diagnosis often associated with the impact on clinical outcome of multiple myeloma.[7]

2. Findings
Mr. H, a 66-years-old man came to Adam Malik General Hospital with a complaint of chronic low back pain since one year. Before, he was always getting treatment at local primary government health care facility and haven’t got much improvement by taking painkillers. He was sent to orthopedics at a private hospital for further investigation of his disease. From the orthopedics, he was told that he had a compression fracture and had to undergo surgeries. After two major operations, he complained that the pain hasn’t healed and he was told to go to Adam Malik General Hospital. History of losing weight with loss of appetite was founded. History of other chronic diseases was not found, and his family has never had the same issues. From physical examinations, the patient looked malnourished and a bit anemic. Laboratory showed Hb 10.1 g/dl, Leukocyte 14.75 x 10³/mm³, creatinine 2.61 mg/dL and M
protein was positive in urine electrophoresis. Radiology showed multiple punched out lesions in the skull and lumbar compressions in MRI. Histology also showed plasmacytoma.

During the follow-up, he received bortezomib and dexamethasone therapy, and carefully follow up of adverse effect. After several months of follow up, he feels a bit of improvement.

![Figure 1. Skull radiography of the patients showed punched out lesions.](image1)

![Figure 2. Lumbar MRI of the patients showed multiple compression fractures.](image2)

3. **Discussion**

Late diagnosis of multiple myeloma is often, especially in primary health care. Therefore, the general practitioner must increase his/her awareness.[7] Bone pain is the most common complaint in patients with this disease or with a solitary plasmacytoma. Other symptoms are such as weight loss, weakness, anemia, thrombocytopenia, peripheral neuropathy, hypercalcemia, renal failure also present in
multiple myeloma [2]. In this case, the patient came with chronic low back pain due to the pathologic fracture, anemia, significant weight loss, and renal insufficiency.

Establishing diagnosis of multiple myeloma need several tests, such as serum immunoelectrophoresis, skeletal survey, bone marrow biopsy and even biopsy of the bone lesion. The most common findings in radiology are multiple, punched out, sharply demarcated, purely lytic lesions without any reactive sclerosis from the surrounding. From the histology, multiple myeloma appears as sheets of the plasma cell.[2] Majority of multiple myeloma also seen in monoclonal protein workup which can be detected by protein electrophoresis of the serum and/or of an aliquot of 24-hour urine collection combined with immunofixation of the serum and urine.[8] In this case, we found punched out lesions in the skull and pathological fracture from the lumbar MRI. Plasmacytoma, monoclonal protein in urine were also from further investigations.

Initial evaluations of the patients regarding the treatment must carefully establish. The comprehensive geriatric assessment must also be conducted to assess comorbidity and functional status especially in the older patient with multiple myeloma. Therapy for multiple myeloma is given based on the risk (high, intermediate or standard risk).[9] In this case, the patient was given bortezomib-containing regimens and need further follow up.

4. Conclusion
A case report of Multiple myeloma in 66 years old man having multiple fractures before consulted to hematology and oncology division. There was a delay in diagnosis but after several months of bortezomib-containing regimens showed improvement.

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