

Solitary Plasmacytoma in the Oral cavity: A Case Report

Mehrdad Payandeh¹, Masoud Sadeghi^{2,*}, Edris Sadeghi², Jalil Hamidi³

¹Department of Hematology and Medical Oncology, Kermanshah University of Medical Sciences, Kermanshah, Iran

²Students Research Committee, Kermanshah University of Medical Sciences, Kermanshah, Iran

³Medical Biology Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

*Corresponding author: sadeghi_mbrc@yahoo.com

Received March 28, 2015; Revised July 08, 2015; Accepted July 09, 2015

Abstract Background: The plasma cell neoplasms may present in soft tissue as extramedullary plasmacytomas, in bone as a solitary plasmacytoma of bone, or as part of the multifocal disseminated disease multiple myeloma. The aim of study is to report solitary plasmacytoma in the oral cavity in a male patient. **Case Report:** A 65-year-old male was presented to our Clinic with hypertension, high fever and loss of balance. He had nine months ago one localized lytic lesion in his thoracic vertebrae T5. The clinical reports showed multiple myeloma for him. After that, He received melphalan and thalidomide for two months. The patients referred to Clinic again with a new oral lesion. In his treatment follow-up and biopsy from his new oral lesion, pathologist reported plasmacytoma. He was treated with radiotherapy(5.000 cGy), than received maintenance consisted of thalidomide 50 mg (VAD). He died after three months from treatment with VAD. **Conclusion:** The SPB is as part of the multifocal disseminated disease MM. Also, radiotherapy (5.000 cGy) and VAD are not optimal treatments for SPB.

Keywords: oral cavity, plasmacytoma, radiotherapy

Cite This Article: Mehrdad Payandeh, Masoud Sadeghi, Edris Sadeghi, and Jalil Hamidi, "Solitary Plasmacytoma in the Oral cavity: A Case Report." *American Journal of Cancer Prevention*, vol. 3, no. 4 (2015): 72-73. doi: 10.12691/ajcp-3-4-1.

1. Introduction

Solitary plasmacytoma of bone (SPB) and extramedullary plasmacytomas (EMP) are rare plasma cell proliferative disorders. Their diagnosis is based on histologic confirmation of monoclonal plasma cell infiltration of a single disease site and on the exclusion of systemic myeloma. [1] Patients with SPB are more likely to progress to multiple myeloma(MM), which adversely affects their survival compared with those with EMP. [2] The SPB usually occur in the vertebra and skull and are more common than EMP that almost always arise in the head and neck and may spread to regional lymph nodes. [3] Prognosis is relatively good and is better for patients with EMP compared with those presenting with SPB. [3] Localized pain, swelling, a raised red lesion on the alveolar ridge are the most clinical signs for plasmacytoma. This disease includes patients with more than one lesion, for it is elevated levels of myeloma protein, and excludes patients whose disease progressed within 2 years or whose abnormal protein persisted after radiotherapy. Absence of anemia, hypercalcemia, or renal impairment attributable to myeloma low, if present, concentrations of serum or urine monoclonal protein preserved levels of uninvolved immunoglobulins. [4] The aim of study is to report solitary plasmacytoma in the oral cavity in a male patient.

2. Case Report

In April 2013, a 65-year-old male was presented to our Clinic with hypertension, high fever and loss of balance. He had nine months ago one localized lytic lesion in his thoracic vertebrae T5. The clinical reports showed MM for him. He was treated with velcade (bortezomib), thalidomide 100 mg plus dexamethasone for six months. After that, He received melphalan and thalidomide for two months. The patients referred to Clinic again with a new oral lesion (Figure 1). In his treatment follow-up and biopsy from his new oral lesion, pathologist reported plasmacytoma. Pathologist evaluated this case by morphological analysis and IHC and reported that CD45, CD38 and EMA were positive but CD20, CD10, CD5, CD3, CDD23, CD15, CD99, Cytokeratin were negative and also Ki67 was 30% positive in cells. He was treated with radiotherapy (5.000 cGy), than received maintenance consisted of vincristin/sadriamycin/dexamethazone (VAD). He died after three months from treatment with VAD.

3. Discussion

The plasma cell neoplasms may present in soft tissue as EMP, in bone as a SPB, or as part of the multifocal disseminated disease multiple myeloma (MM). These tumors are derived from bone marrow stem cells of B-

Lymphocyte lineage, and are characterized by an expansion of a clone of immunoglobulin-secreting cells. [5] Plasmacytoma is a clinical finding that is difficult to diagnose. Only the anatomopathological exam, preferably accompanied by an immunohistochemical study, can confirm the diagnosis through positive plasma cells that express CD38 with concomitant cytoplasmic expression of kappa or lambda light chains and the majority of patients with extramedullary plasmacytoma are male (63%-86%) [6].



Figure 1. An image showing solitary plasmacytoma in the oral cavity

Although EMP can occur in any site, 80-90% of tumors develop in the head and neck area, especially in the aerodigestive tract. Approximately 80% of cases involve the paranasal sinuses, pharynx, nasal cavity, or gums and oral mucosa. [7] Based on the documented radiation sensitivity of plasma cell tumors, the accepted treatment for EMP is radiotherapy. When a lesion can be completely resected, surgery provides the same results as radiotherapy. Combined therapy (surgery and radiotherapy) is an accepted treatment depending on the respectability of the lesion. [8] Romero et al. [9] concluded that The most widely accepted treatment is chemotherapy with cyclophosphamide, melphalan, and steroid protocols. Radiotherapy may also be used since the tumor is radiosensitive (eradicable at a dose of 4.000 to 5.000 cGy). Another alternative is surgical resection. Dimopoulos et al. [2] reported with modern radiotherapy and with a total dose of at least 4000 cGy, the risk for local recurrence is less than 5%. There is no role for systemic chemotherapy in the management of these disorders. Approximately 30% of patients with SBP remain disease-free for several years;

some of these patients may be cured. Mendenhall et al. [3] reported that the optimal treatment for SBP is moderate-dose radiotherapy (40-50Gy) and occasionally surgery. In our study, the patient is male and CD38 was positive for him. Also, our patients had solitary plasmacytoma after nine months from diagnosis of MM. The patients was treated with radiotherapy (5.000 cGy) and VAD for plasmacytoma, but he died after 3 months. Therefore, survival in our patients was short.

In summary, the patient died with picture of pancytopenia without response to last treatment regimen of VAD. In beginning of disease, response was good but in follow-up of therapy, the patient went to a deteriorated way that we did not know why! It seems that he must be selected for bone marrow transplant (BMT), but when referred to this policy, he was rejected by BMT group.

4. Conclusion

The SPB is as part of the multifocal disseminated disease MM. Also, radiotherapy (5.000 cGy) and VAD are not optimal treatments for SPB (the patient despite of classic therapy, didn't have good response). The specialists should be careful in type of chemotherapy for MM.

References

- [1] Dimopoulos MA, Hamilos G. Solitary bone plasmacytoma and extramedullary plasmacytoma. *Curr Treat Options Oncol.* 3(3):255-9.2002.
- [2] Dagan R, Morris CG, Kirwan J, Mendenhall WM. Solitary plasmacytoma. *Am J Clin Oncol.* 32(6):612-7.2009.
- [3] Mendenhall WM, Mendenhall CM, Mendenhall NP. Solitary plasmacytoma of bone and soft tissues. *Am J Otolaryngol.* 24(6):395-9.2003.
- [4] Dimopoulos MA, Mouloupoulos LA, Maniatis A, Alexanian R. Solitary plasmacytoma of bone and asymptomatic multiple myeloma. *Blood.* 96(6):2037-44.2000.
- [5] Regezi JA, Sciubba JJ, Jordan RCK. *Oral Pathology: Clinical Pathologic Correlations.* 4th Edn. Philadelphia, W.B. Saunders. 2003.
- [6] Barros TP, Savilha FM, Amantea DV, Campolongo GD, Neto LB, Alves N, et al. Plasmacytoma in the oral cavity: A case report. *Int J Odontostomat.* 5(2):115-118. 2011.
- [7] Galièni P, Cavo M, Pulsoni A, Avvisati G, Bigazzi C, Neri S, et al. Clinical outcome of extramedullary plasmacytoma. *Haematologica.* Jan. 85(1):47-51.2000.
- [8] Hu K, Yahalom J. Radiotherapy in the management of plasma cell tumors. *Oncology (Williston Park).* Jan. 14(1):101-8.2000.
- [9] Romero IL, Campos FA, Damasceno RW, Vital Filho J, Bison SH. Plasmacytoma of the orbit involving lacrimal gland with secondary transformation into multiple myeloma: case report. *Arq Bras Oftalmol.* 72(2):236-8.2009.