Role of Radiotherapy in Mucosal Kaposi Sarcoma

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Mucosal Kaposi sarcoma (MCS) is a rare, low-grade vascular tumor with low malignancy potential. MCS accounts for 5% of all Kaposi sarcomas. It is most commonly seen in oral cavity at head and neck region. It is mostly seen in HIV positive patients. There is no consensus on optimal treatment of these tumors due to insufficient data on treatment and lack of uniform criteria for staging. Surgery, chemotherapy and radiotherapy are planned either alone or in combination based on epidemiological and clinical features of MCS [1–3].

Radiotherapy provides good therapeutic outcomes in cases with early-stage Kaposi sarcoma localized to mucosa. In addition, radiotherapy is also effective in the control of local symptoms such as bleeding or pain. Although control rate is high with radical surgery in small tumors, adjuvant therapy is needed in advanced stages. However, successful local control is achieved with radiotherapy in early stages [4, 5]. In a multicenter clinical trial on MCS, it was reported that complete control rates ranged from 60 to 93% with minimal toxicity. It was found that median survival was 66.9 months, and that 5-year disease-free survival rates were 81.6 and 75.0% in patients underwent radiotherapy or not, respectively [5].

Several radiotherapy regimens are used in the treatment of MCS. In these tumors, 30 Gy in 10 fractions, 39 Gy in 15 fractions or 45 Gy in 15 fractions, etc., are effective in local control of the tumor. Hypofractionation (6 Gy in single fraction, 20 Gy in 4 or 5 fractions, etc.) could be preferred if general health status is poor in the patient. In

greater tumors, the patient should be assessed for boost dose [1, 4, 5].

It is difficult to draw definitive conclusions regarding treatment outcomes since series evaluating treatment outcomes in MCS involve limited number of patients. Currently, treatment approach is selected based on follow-up results of cases. In MCS, the treatment should have to be individualized for each patient according to age, CD count, HIV positivity, tumor localization and stage. In MCS, radiotherapy is considered as best treatment modality providing lowest mortality and highest local and regional control rates. Radiotherapy planning should be individualized. Radiotherapy is mainly given as postoperative or primary therapy in stage I and II tumors. Several radiotherapy regimens are used in the treatment of MCS. In general, total dose of 30–40 Gy in conventional fraction schemes is given. Total dose (15–20 Gy) should be lowered in patients with immunodeficiency. Combined therapies with higher likelihood of success should be considered in advanced stages.

Compliance with ethical standards

Conflict of interest Author declares that she has no conflict of interest.

Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent Informed consent was not obtained from all individual participants included in the study.

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