

Pulmonary Metastasectomy in Osteosarcoma Patients

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Objective: To investigate the relating prognosis factors in patients of osteosarcoma with pulmonary metastasis and to discuss whether resection of pulmonary metastases and other factors could improve the prognosis of patients.

Method: A retrospective analysis was made on clinical materials of 101 patients that had hospitalized in The First Affiliated Hospital of Sun Yat-sen University due to osteosarcoma with pulmonary metastases.

Results: The median follow-up in this study was 21.0 months; The patients suffering from osteosarcoma with pulmonary metastasis are male 61, female 40; the median age 17.0 years old, the youngest 6 years, the oldest 65 years old; the average time from primary tumor resection to pulmonary metastasis was 8.0 months. Most patients did not get benefits from changing to second-line chemotherapy and some patients' pulmonary lesion turned to a steady period after using targeted drugs. For patients who had less than 5 pulmonary metastasis lesions and had received pulmonary metastasectomy, the average survival time was 51.6 months; for those who did not receive operation, the general survival time was 32.2 months. These two had significant statistical difference ($P < 0.001$).

Conclusion: Pulmonary metastasectomy in patients with osteosarcoma could evidently improve survival rate. It is suggested that patients with pulmonary metastatic lesions under 5 should be resected. For those who have pulmonary metastases at the time of diagnosis, it is suggested not only the patient should have wide excision of the primary lesion, and also they should be performed metastatic lesions excision that can be resected by surgical technology possibly.