THE CLINICAL OUTCOME OF PULMONARY METASTECTOMY IN MUSCULOSKELETAL SARCOMA PATIENTS IN A SINGLE CENTRE: A RETROSPECTIVE COHORT STUDY.

Thinesh Varan Subramaniam[1]

[1]University Malaya

Introduction: Pulmonary metastasis is frequently seen in patients diagnosed with musculoskeletal sarcomas despite aggressive treatment of primary tumours and common for them to have lungs as the only site of metastasis which often results in early death. This study is looking at the outcomes of patients that developed pulmonary metastasis and underwent pulmonary metastectomy (PM) against a group of patients treated without PM. The prognostic factors that determined the survival of patients were also assessed.

Methodology: This is a retrospective review of musculoskeletal sarcoma database at for a duration between January 2006 to December 2016. We identified patients that had pulmonary metastasis from musculoskeletal sarcomas. Study group consist of patients that were treated with PM and control group that were treated without PM. Data on demographics pattern, primary tumours, pulmonary metastases, treatment and outcomes were also collected.

Discussion: The mean age of patients in this study was 29.8 ± 17.3 years. A total of 74 patients developed pulmonary metastasis from musculoskeletal sarcomas; 35 patients treated with PM and 39 patients treated without PM. The median overall survival (OS) for patients treated with PM was 37 months (range 6 to 117 months) and for those treated without PM was 19 months (range 0 to 75 months). Data analysis showed the difference in the median OS between study and control groups was significant (P= 0.00). The relapse free survival in the study group was 35 months (range 6 to 117 months). Clear lung resection margins were found to be the most important prognostic factor and it is significantly associated with improved OS of patients(P=0.001)

Conclusion: Patients who developed lung metastasis from musculoskeletal sarcoma and treated with PM, particularly with clear resection margins, have better OS outcomes compared to patients treated without PM. The findings of this study are consistent with other established literature published to date.