

## **The New Treatment of Osteosarcoma by Biologic Response Modifiers**

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Osteosarcoma is a kind of bone cancer mainly affecting children and young adults and is lethal in about a third of cases. The treatment of osteosarcoma has evolved greatly during the last 40 years, however, the great progress that was seen in the 1970s and early 1980s has since stalled. The main challenge now is that advanced combination treatment can't continue prolong the survival. Based on the micro-metastatic disease related to shorter survival, biologic response modifiers become a new treatment which can stimulate the immune system to eradicate minimal residual disease post-surgery, chemotherapy and radiotherapy. This kind immune treatment may improve the disease-free and long-term survival rates of patients. Mifamurtide is a novel biologic response modifier which is indicated for the treatment of high-grade, non-metastasizing, resectable osteosarcoma following complete surgical removal in children, adolescents, and young adults. In our study, we searched for non-phase I Mifamurtide clinical studies on osteosarcoma through Medline, Google Scholar, and Clinical Trial Government Database. Among six clinical studies we found, two phase II trials, one phase III trial, one patient-access study, one decision study, and one cohort study. We systematically analyzed these studies and further evaluated the efficacy, side effects and safety of Mifamurtide on osteosarcoma.