

The Effects of Zoledronic Acid Therapy on Bone Metabolic Indicators Can Be Assessed Not Only in Prostate but Also Kidney Cancer Patients with Bone Metastasis

Introduction and Objectives: We assessed the effectiveness of bone metabolic indicators for predicting the effects of zoledronic acid therapy on bone metabolic indicators not only in prostate but also kidney cancer patients with bone metastasis.

Materials and Methods: Prostate and kidney cancer patients who were identified to have metastases in their bone scintigraphy were taken to trial group. They were divided into two groups with or without zoledronic acid. Once they had skeletal-related events (SREs) such as bone pain and fractures, the treatment of zoledronic acid were started. Before administration of zoledronic acid, routine tests for serum calcium, total alkaline phosphates were monitored. Sample sera for bone metabolic indicators BALP, NTx, and ICTP were collected. Four mg zoledronic acid was administered intravenously once a month.

Results: When serum levels of bone forming indicators NTx and BALP were compared before and after therapy, there were insignificant decreases. Serum levels of bone destruction indicator ICTP was compared, and there was a significant decrease after zoledronic acid therapy.

Conclusion: Zoledronic acid therapy decreased bone destruction and was effective in palliation of pain in patient with bone metastasis. Using bone metabolic indicators during follow-up of zoledronic acid therapy might be useful in not only prostate but also kidney cancer patients.