METASTATIC BONE PAIN PALLIATION WITH P-32 IN COMBINATION WITH VITAMIN D; OUR PRELIMINARY EXPERIENCE

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Phosphorus- 32 (^{32}P) is a routinely used bone pain palliation agent at our institute due to its cost, availability and proven efficacy with mild and self limiting myelo-suppression. Vitamin D is known to de-differentiate tumors and supposed to enhance calcium deposition onto metastatic foci with a hope of reducing the marrow effects. A pilot study showing an increase in the ^{99}mTc-MDP uptake by skeletal metastatic foci, using single pulse dose of Vitamin D, in some of the patients preceded this study and found the basis for this study.

The aim of this study was to evaluate the role of ^{32}P alone and in combination with vitamin D in the palliation of bone pain from osseous metastases and to look for its clinical efficacy and reduction in marrow suppression in our clinical environment..

62 patients with extensive osteoblastic bone metastases were randomly divided into 3 groups. Group A received P-32 alone, group B combination therapy of P-32 and vitamin D and group C vitamin D alone. All these patients were evaluated by a standard protocol on broad parameters of pain reduction, reduction in analgesic consumption, improvement in quality of life and effect on bone marrow suppression at the end of 4th and 8th week post-therapy.

Favorable response (≥25%) to treatment was recorded in 55% of cases in-group A, 81% in-group B and 9% in-group C. Reduction in pain score of 50% to 100% were obtained in two cases in group A and 10 in group B. A decrease in pain of 26% to 50% and ≤ 25% was observed in 10(45%) and 4(18%) cases respectively in group A, and 8(36%) and 2 (9%) cases respectively in group B. Analgesic consumption was reduced in both the groups of P-32, comparatively more in group B. The improvement in mobility and quality of life was observed to be better in group B than A and C. A decrease of white blood cells, hemoglobin level and platelets counts was observed in both groups of P-32 but no significant difference was noted in group A and B was noted at the end of 8th week.

It was concluded that P-32 is an effective agent for the palliation from osseous metastases. Vitamin D as an adjuvant to P-32 therapy increases the clinical efficacy of P-32. P-32 alone or in combination with vitamin D has myelo-suppressive effect that is transient and self-limiting.