Zolidronate Induced Osteonecrosis of Jaw

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Figure: Orthopanatomograph (OPG) showing a large osteolytic lesion (right) at the site of clinical inflammation osteonecrosis of jaw

A 70 year old patient diagnosed as multiple Myeloma (IgG type, stage-III A) was started on chemotherapy and bisphosphonates (Zoledronic acid 4 mg i/v over 15 minutes monthly). Till October 2009 patient had received 15 doses of zoledronic acid when he started with swelling of right side of mandible. Patient presented to dentist who started him on antibiotics. Clinical possibility of osteonecrosis of jaw (ONJ) was substantiated when an ortho-panatomograph (OPG) revealed osteolytic lesion at the site of clinical inflammation (as shown in Figure above). Patient was managed on the lines of osteomyelitis.

A medical rarity about a decade before, osteonecrosis of the jaw has been observed since 2003 in patients (1 case in about 10,000 treated subjects) receiving high doses of nitrogen-containing bisphosphonates. About 90% cases of ONJ seen by dentists are drug related. Possible risk factors for developing ONJ include: having been diagnosed with cancer, receiving treatment with chemotherapy plus bisphosphonates, radiation, corticosteroids usage, having poor oro-dental hygiene or disease.

Reference