

Basic Guide To Bone Problems

70% of Myeloma patients discover their disease by spine or rib pain

- Fractures, unless severe, usually seen as osteoporosis on X-rays, thus delaying diagnosis
- 20% of MM patients never experience bone disease

Myeloma weakens bone in two ways

- Eats away at structure of outer covering, causing holes
- Leaches calcium and minerals from bones

Hole caused by above are filled with Myeloma cells, and thus greatly weakens bone

To repair cracks in spine, injection of “bone cement” (Kyphoplasty) is most common

- Also beneficial as it often also eliminates or minimizes pain
- Reconstructive surgery is often overused
 - o Only recommended for occasional use to small areas
 - o Also when there is nerve root or the spinal cord encroachment
- Myeloma experts also strongly discourage radiation for myeloma related spinal pain, as it is ineffective
 - o Can be effective for pain related to larger bones

Some pain associated with spinal problems is muscle related

- The spinal geometry has been altered - spine is not able to carry the weight of the body, and may even be curved
- Back muscle are taking up the burden, and can not tolerate the strain long

MGUS patients often have high possibility of osteoporosis – is not myeloma related

Supplements have shown little impact on bone problems or myeloma

- However, it is recommended to take Vitamin D and Calcium to help replaced loss minerals
- These are especially important if patient is on a bone strengthening agent (see below)
- See your doctor for recommended doses!!!
- Many patients overdo these drugs, and this can be dangerous
 - o Vitamin D is stored in your liver, over supply can cause problems!

There is no way to repair or heal our bones (yet! Lots of research underway!)

- But getting rid of Myeloma cells fills the holes with scar tissue, which is much stronger than the Myeloma cells

To help battle bone loss, most common drugs are

- Zometa, a bisphosphonate (zoledronic acid) and
- Xgeva (denosumab) a human monoclonal antibody
 - o Denosumab is also called Prolia when used for osteoporosis
 - o If patient has kidney problems, Xgeva is best option

Both medications seem to have slight anti-myeloma properties

These drugs help fight bone loss, and are recommended for long term use

- Many experts suggest for full course of disease
- However, overtime these drugs can cause problems with continued use
- Therefore it is suggested during maintenance to change to less frequent doses
1 x/3 months, 1x/6 month or yearly
- BE SURE TO DISCUSS WITH YOUR DOCTOR

Each time a patient relapses, specialists recommend “re-staging”

- Tests should include blood work, urine tests, bone marrow biopsy, CT survey and in some instances PET (no skeletal survey)

Also, long term use of Dexamethazone can bone problems in your hips

- Not myeloma or osteoporosis related