LONG-TERM (> 2 YEARS) ZOLEDRONIC ACID (ZA) TREATMENT FOR BONE METASTASES (BM)

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Aim of the study

We compared major adverse events frequence in the whole group of pts treated with ZA between 2001 and 2007 with the subgroup of long-term treated (LTT) pts (> 2 years of ZA exposure).

Methods

- We treated 129 pz (59 women, 70 men).
 Median age was 74 yrs (range 33 to 88).
- Primary tumors were: 14 myeloma, 41 breast, 32 prostate, 7 renal, 19 NSCLC, 6 SCLC, 3 gastric, 3 bladder, 1 neck, 1 colon, 1 liver, 1 cervical.

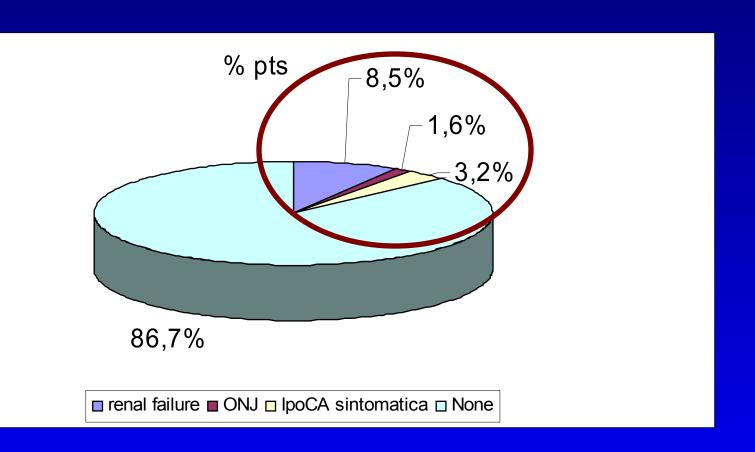
Results

- ZA infusions were 1888 (15 ± 13 /pt, with median 10/pt, range 2 to 59).
- Time of exposure to ZA was less than 2 years for 102 pts, more than 2 years for 27 pts (5 myeloma, 17 breast, 3 prostate, 2 renal tumours).
- The ZA infusions in pts LTT were 36 ± 11 cycles/pt.

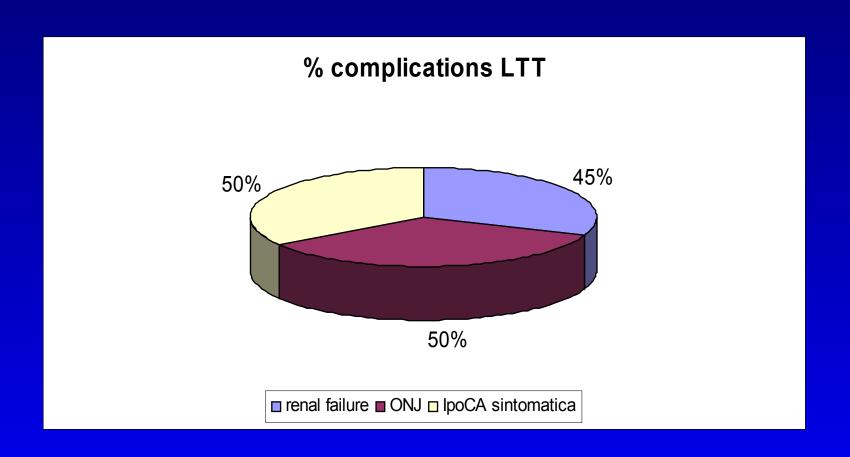
After the diagnosis of bone metastases the median survival was 12 months: myeloma 24, breast 24, prostate 18, renal 11, NSCLC 7, SCLC 9 months.

 13 pts (10%) had pathological fractures during exposure to ZA: 3 myeloma, 5 breast, 3 prostate, 1 NSCLC, 1 renal tumour.

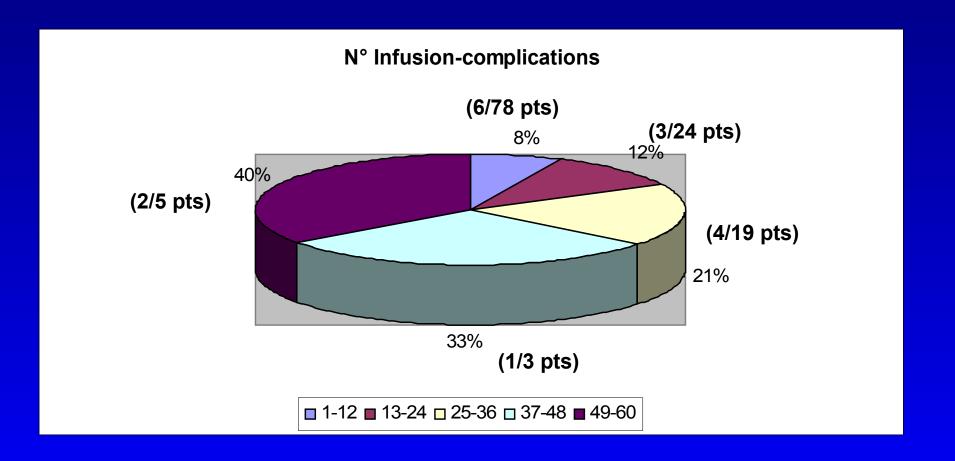
Complications



Complications



The major adverse events increased with ZA number infusions



The major adverse event was renal failure: It developed after an average of 22 months of ZA use (range 3 to 50).

- 21% of myeloma (3/14 pts)
- 10% of breast (4/41 pts)
- 12% of prostate (4/32 pts).

Pts with renal failure received 22 \pm 15 ZA infusions, whereas pts with no renal failure 14 \pm 13 (p < 0.1).

Conclusions

- Long lasting ZA exposure is associated with major adverse events incidence.
- The most frequent major adverse event is renal failure, especially in LTT and in myeloma.
- It is necessary monitor renal function, even more in LTT and in myeloma, and discontinue ZA if it worsens.

- Caution is required for ZA use beyond 2 years in these tumours.
- The onset of renal failure and the partial recovery of serum creatinine after ZA discontinuation suggest a cumulative dose effect and a temporal exposure relation to ZA.
- Further studies are required to investigate if less frequent ZA dose reduce major toxicities with same benefit.