Oxidative Stress and Raloxifene

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Dear Editor,

We read “Effects of raloxifene on bone metabolism in hemodialysis patients with type 2 diabetes” by Saito et al. (1) with a great interest. This paper shows that raloxifene works in diabetic or non-diabetic hemodialysis patients to reduce bone loss. This was shown by means of significant decrease in NTx and a significant increase in SOS measurements in both treatment groups compared to the un-treated control arms. We would like to draw attention to the possible anti-oxidant role of raloxifene regarding beneficial effects on the bone turnover markers as well as bone mass. The targeted population in this study consisted hemodialysis patients with type 2 diabetes who under a great oxidative stress related to both renal failure and diabetes (2, 3). We have previously demonstrated that women with post-menopausal osteoporosis had lower erythrocyte catalase (CAT) enzyme activity and higher erythrocyte malondialdehyde (MDA) levels (4). Interestingly, in another study we showed that raloxifene treatment for 3 months significantly enhanced CAT enzyme activity and reduced the MDA levels in women with PMO (5). Similar anti-oxidant effects of raloxifene were confirmed by others (6). Although neither discussed nor studied by means of enzymatic parameters, we would like to attract Authors’ attention to the potent anti-oxidant effect of raloxifene particularly in this special study population. Significant decrease in N-terminal cross-linking telopeptide of type I collagen (NTx) as well as oxidative stress parameters has been achieved with the use of potent anti-oxidants (lycopen) in patients with PMO (7). We think the results of this present study should also be admissible regarding the anti-oxidant effects of raloxifene particularly in hemodialysis patients with type 2 diabetes who are under great oxidative stress.

Financial Disclosure

None declared.

References

4. Ozgocmen S, Kaya H, Fadillioglu E, Yilmaz Z. Effects of calcitonin, risedronate, and raloxifene on erythrocyte antioxidant enzyme activity, lipid peroxidation, and nitric oxide in postmenopausal
