

Fig. E-1

Bar graph showing the postoperative change in bone-specific alkaline phosphatase (BAP), measured against the preoperative value as a baseline reference, for the alendronate, alfacalcidol, and no-medication groups. There was a difference between the alendronate group and the no-medication group at twenty-four weeks after surgery. BAP in the alfacalcidol group stabilized throughout forty-eight weeks and did not show a significant difference compared with the other groups. The Kruskal-Wallis test followed by the post hoc test (Mann-Whitney U test with Bonferroni correction) showed a p value of 0.0005 (a).

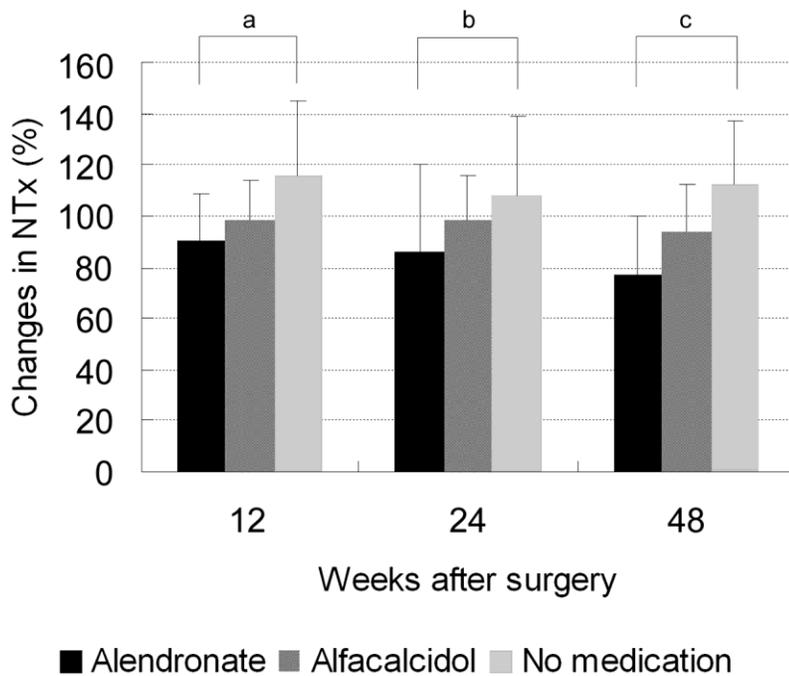


Fig. E-2

Bar graph showing the postoperative change in serum N-terminal telopeptides of type-1 collagen (NTx), measured against the preoperative value as a baseline reference, for the alendronate, alfacalcidol, and no-medication groups. There were differences between the alendronate group and the no-medication group at twelve, twenty-four, and forty-eight weeks after surgery. NTx in the alfacalcidol group showed mild reduction throughout forty-eight weeks and did not show significant differences compared with the other groups. The Kruskal-Wallis test followed by the post hoc test (Mann-Whitney U test with Bonferroni correction) showed p values of 0.003 (a), 0.02 (b), and 0.005 (c).

TABLE E-1 Characteristics of Patients*

	Alendronate (N = 20)	Alfacalcidol (N = 18)	No Medication (N = 22)
Male:female ratio	4:16	5:13	5:17
Age† (yr)	64 ± 10	65 ± 9	65 ± 10
Body-mass index† (kg/m ²)	23.6 ± 5.4	24.4 ± 3.9	25.1 ± 3.8
Lumbar spine†			
BMD (g/cm ²)	0.52 ± 0.09	0.52 ± 0.11	0.55 ± 0.12
T score	-3.0 ± 1.7	-3.3 ± 1.5	-3.3 ± 1.4
Z score	0.0 ± 2.3	0.0 ± 1.1	0.0 ± 1.4
Femur†			
BMD (g/cm ²)	0.87 ± 0.2	0.88 ± 0.2	0.93 ± 0.3

*All values are preoperative values, with the exception of femoral bone mineral density (BMD), which was measured one week after surgery. †The values are given as the mean and the standard deviation.