Fig. 1

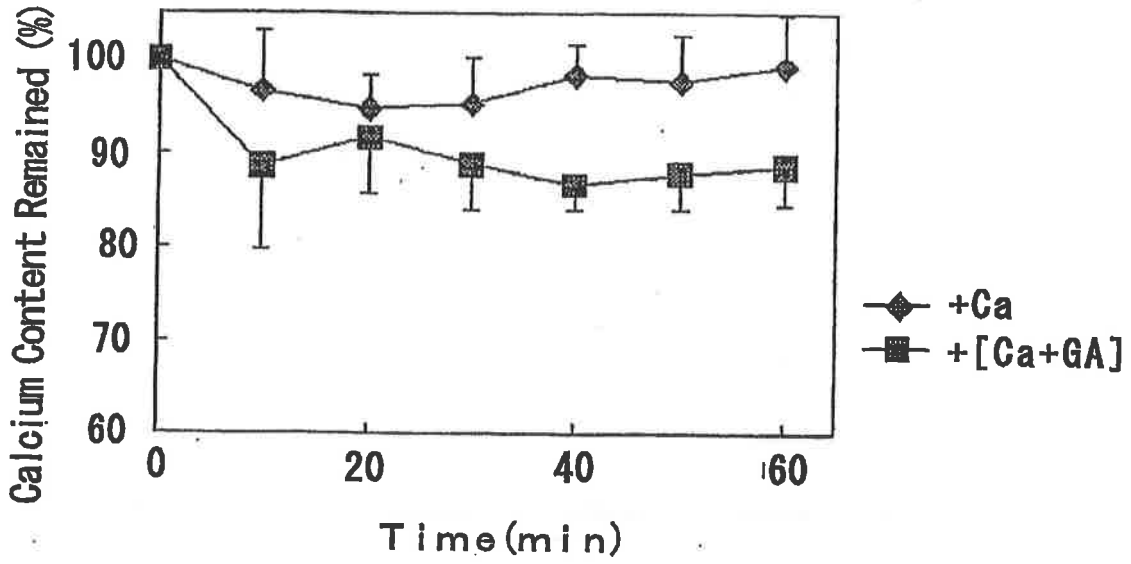

Calcium Content Remained (%)
100
90
80
70
60
0
20
40
60
Time(min)
+Ca
+[Ca+GA]

Fig. 2

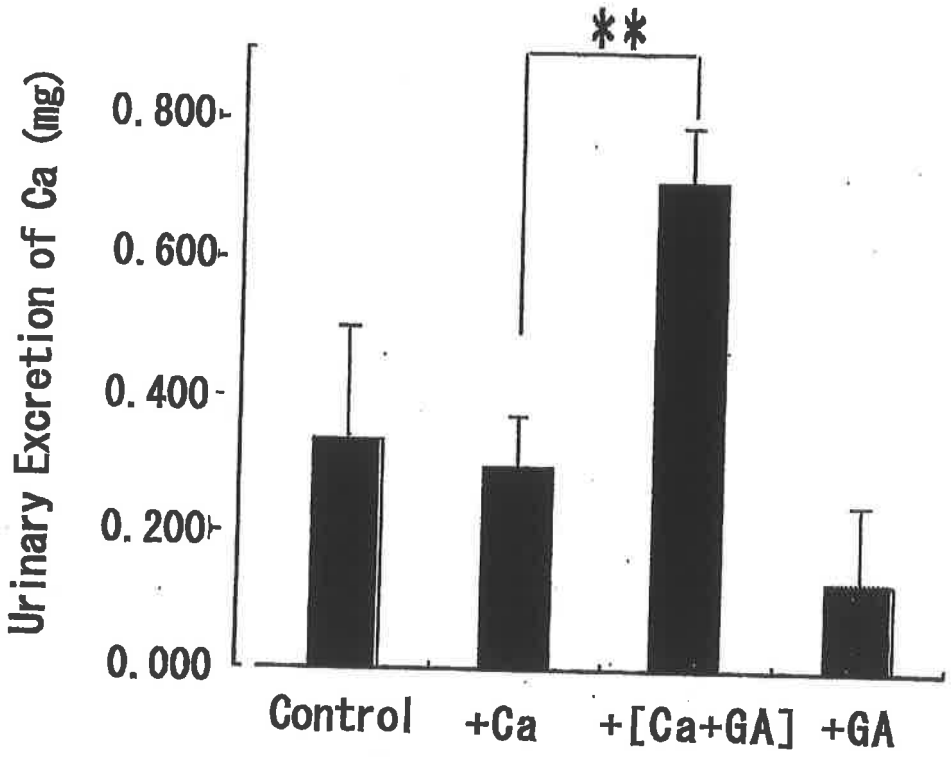

**
Urinary Excretion of Ca (mg)
0.800
0.600
0.400
0.200
0.000
Control
+Ca
+[Ca+GA]
+GA

Fig. 3

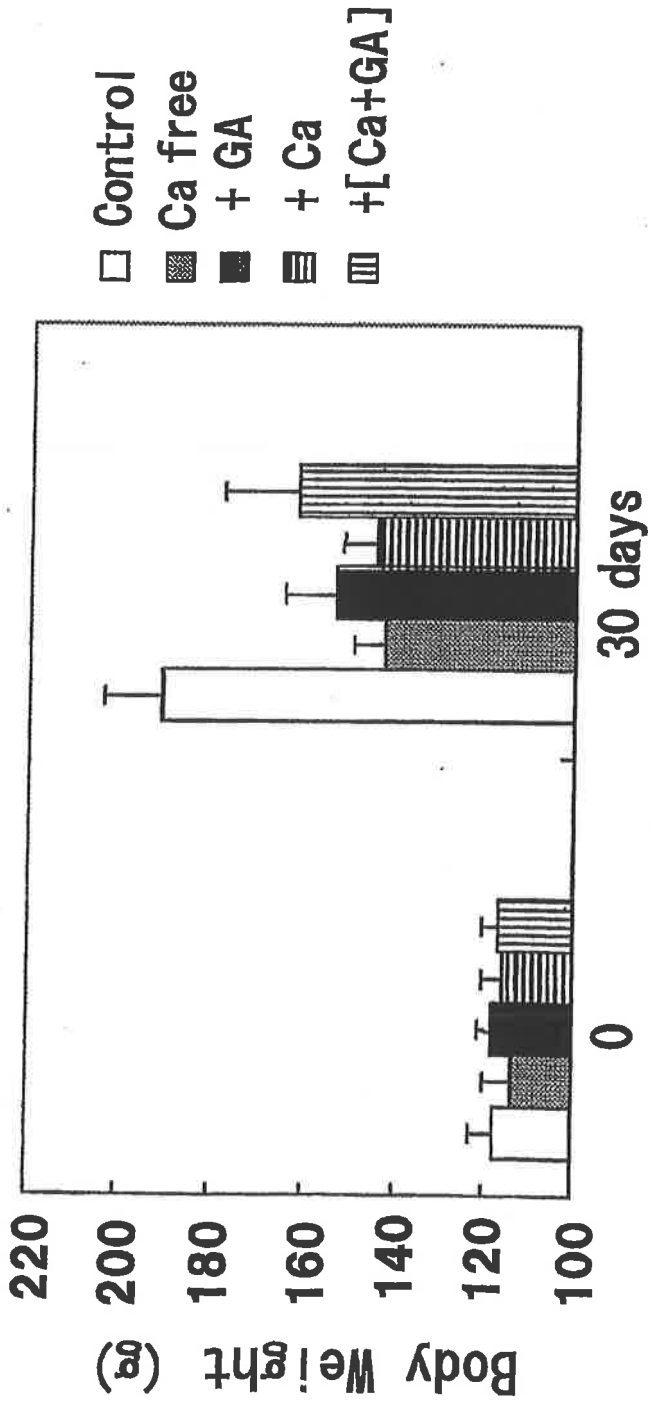

Control
Ca free
+ GA
+ Ca
+[Ca+GA]
Body Weight (g)
220
200
180
160
140
120
100
0
30 days

Fig. 4

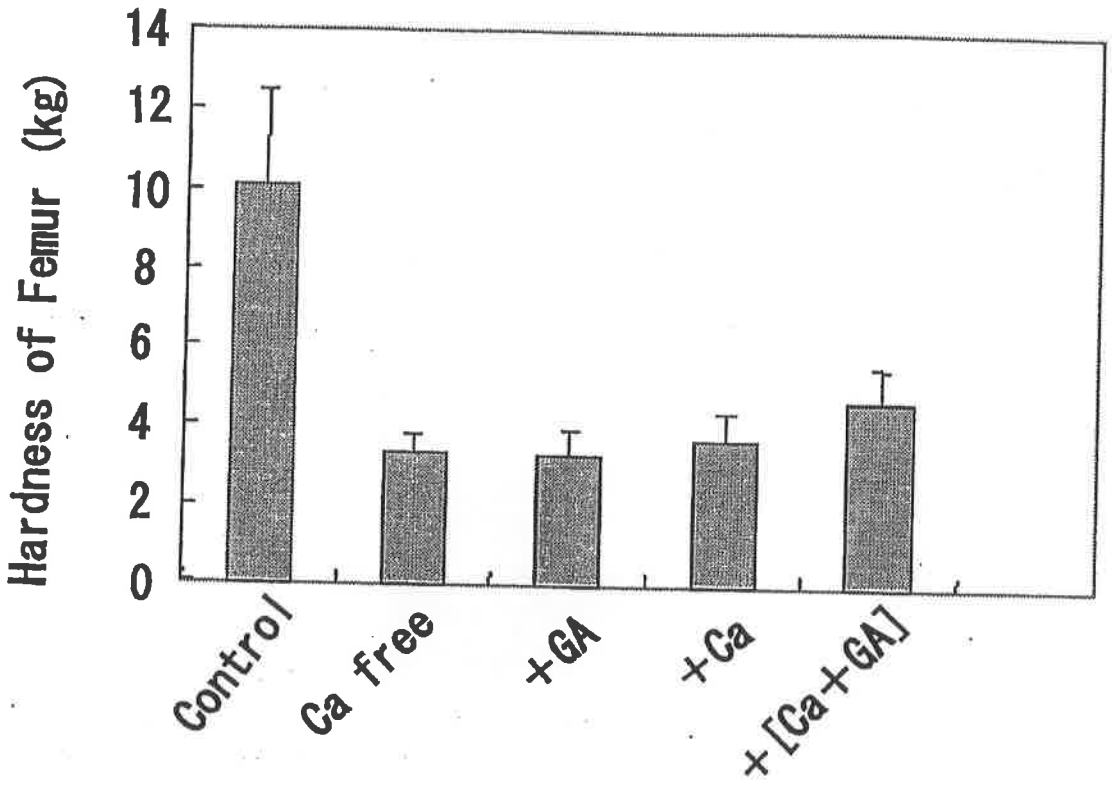


Fig. 5

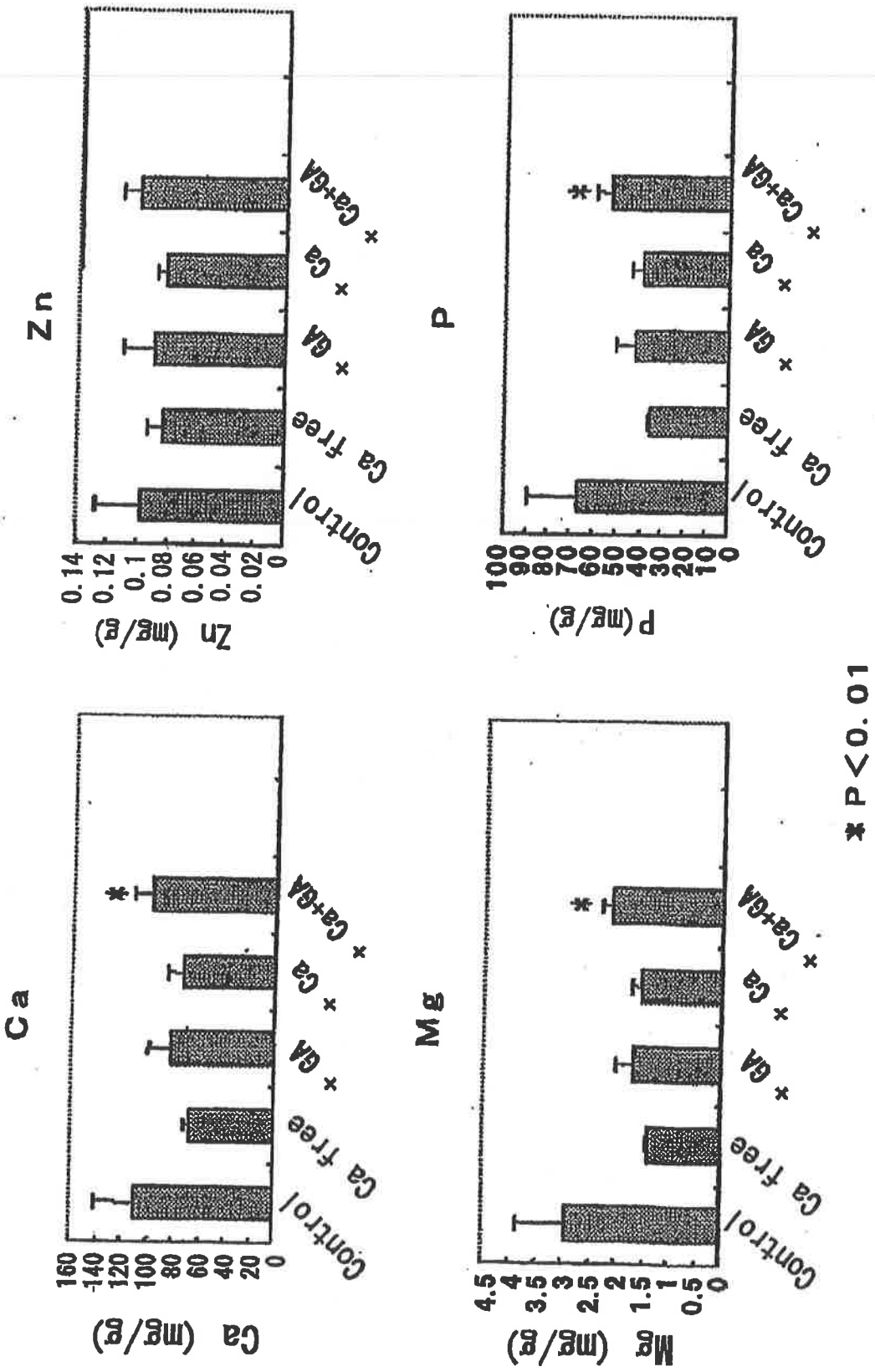
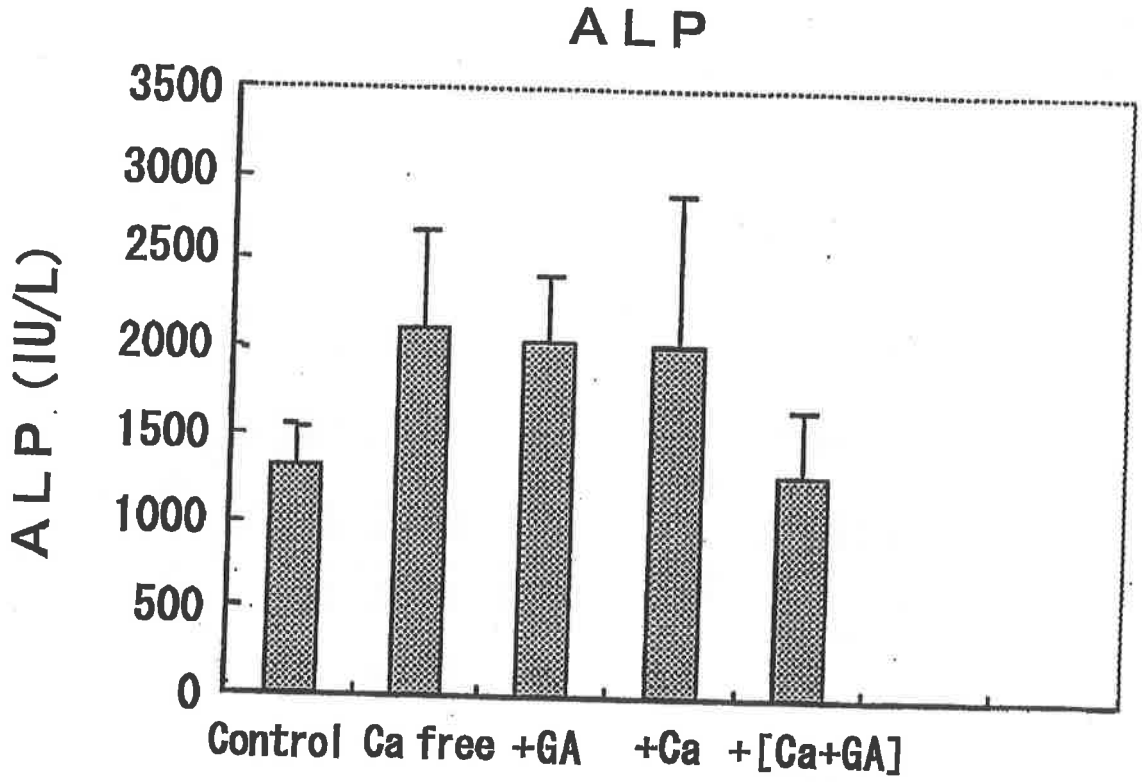

Zn
Zn (mg/g)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Control
Ca free
× GA
× Ca
× Ca+GA
P
P (mg/g)
100
90
80
70
60
50
40
30
20
10
Ca
Ca (mg/g)
160
140
120
100
80
60
40
20
0
Mg
Mg (mg/g)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
* P<0.01

Fig. 6


ALP
ALP (IU/L)
3500
3000
2500
2000
1500
1000
500
0
Control
Ca free
+GA
+Ca
+[Ca+GA]