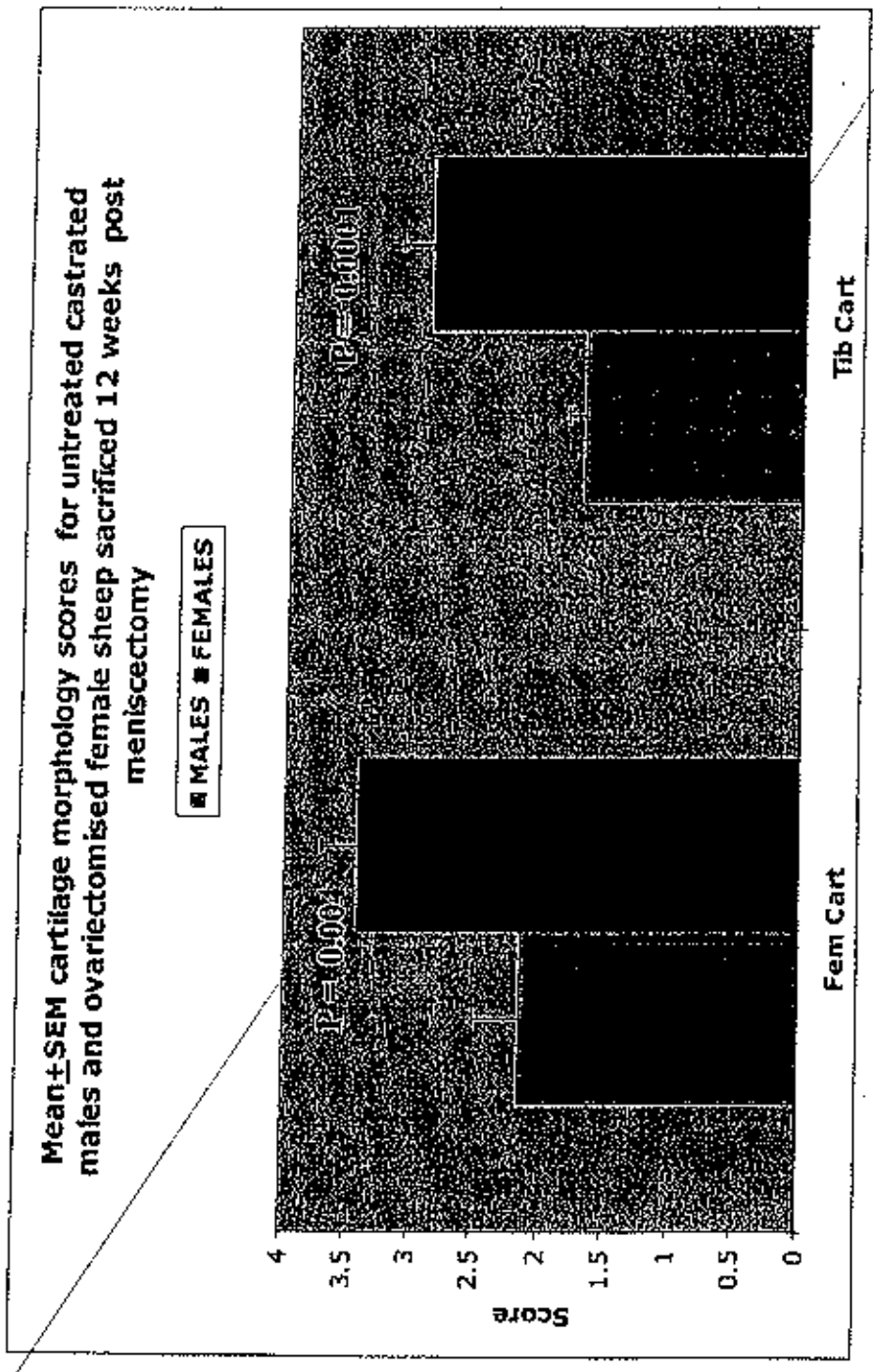

Mean±SEM cartilage morphology scores for untreated castrated males and ovariectomised female sheep sacrificed 12 weeks post meniscectomy
MALES
FEMALES
P=0.001
P=0.0001
Score
4
3.5
3
2.5
2
1.5
1
0.5
0
Fem Cart
Tib Cart

Figure 16

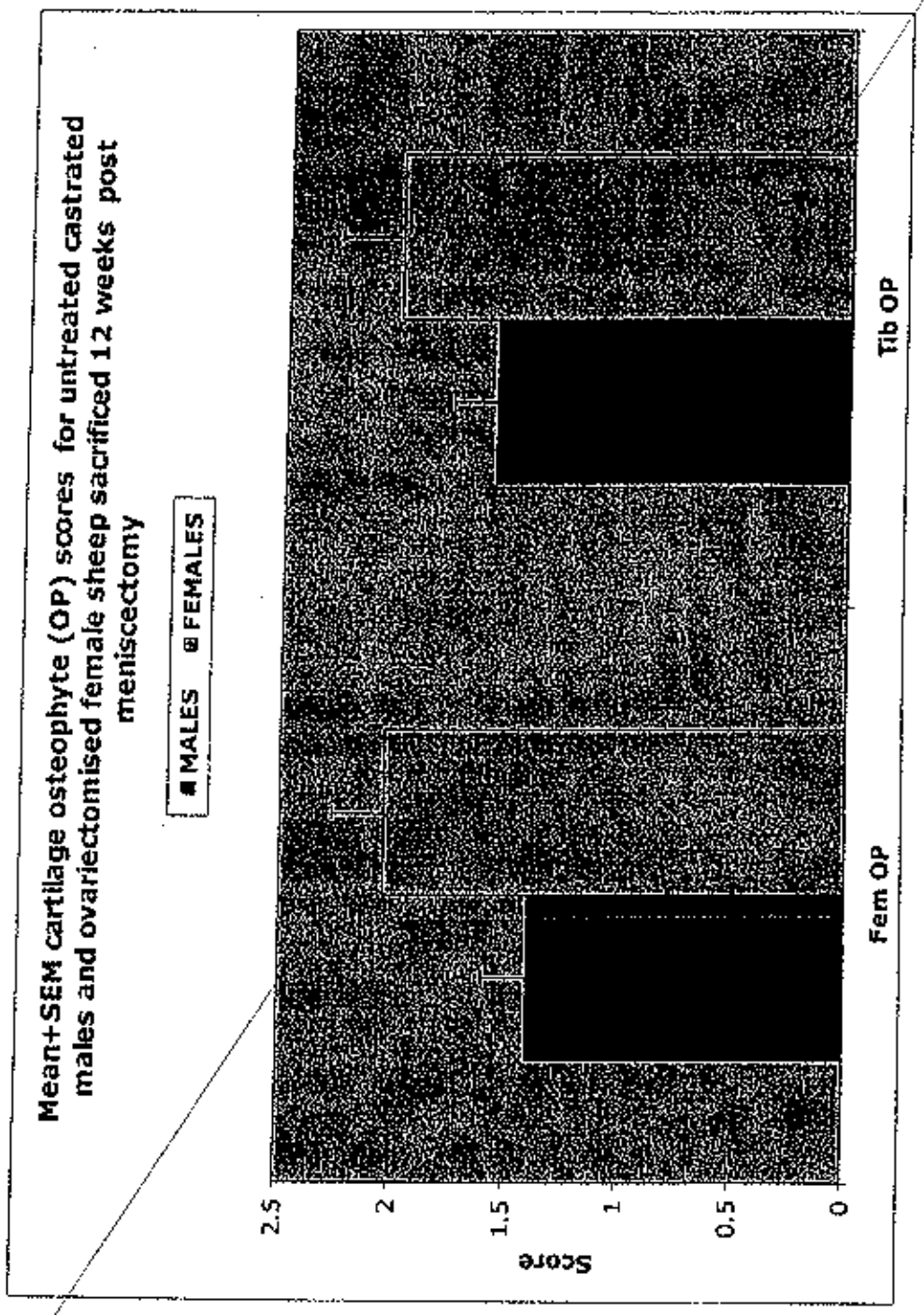

Mean+SEM cartilage osteophyte (OP) scores for untreated castrated males and ovariectomised female sheep sacrificed 12 weeks post meniscectomy
MALES
FEMALES
Score
2.5
2
1.5
1
0.5
0
Fem OP
Tib OP

Figure 17

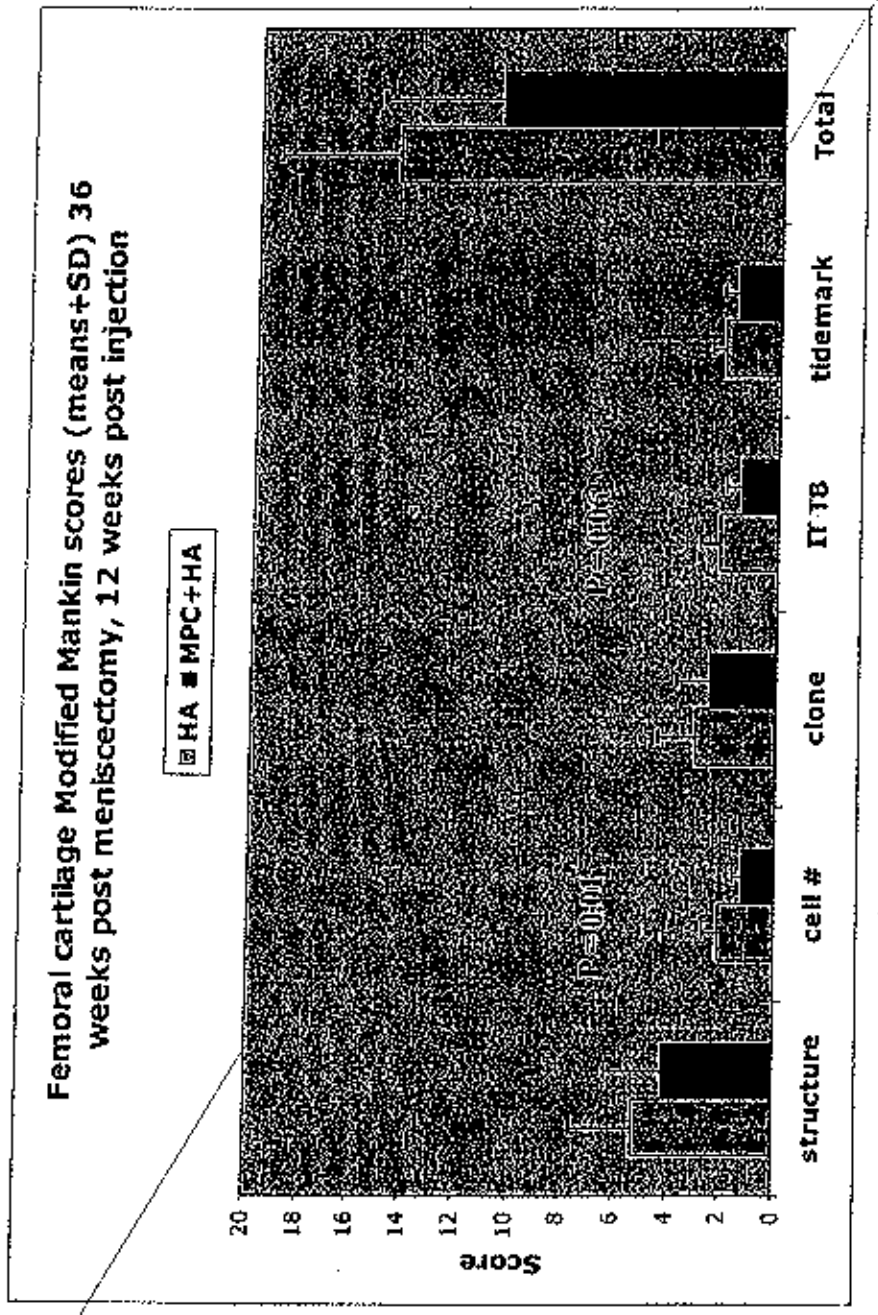

Femur
Femoral cartilage Modified Mankin scores (means+SD) 36 weeks post meniscectomy, 12 weeks post injection
HA
MPC+HA
Score
20
18
16
14
12
10
8
6
4
2
0
P=0.001
P=0.05
structure
cell #
clone
IT TB
tidemark
Total
HA Score > MPC Score

Figure 18

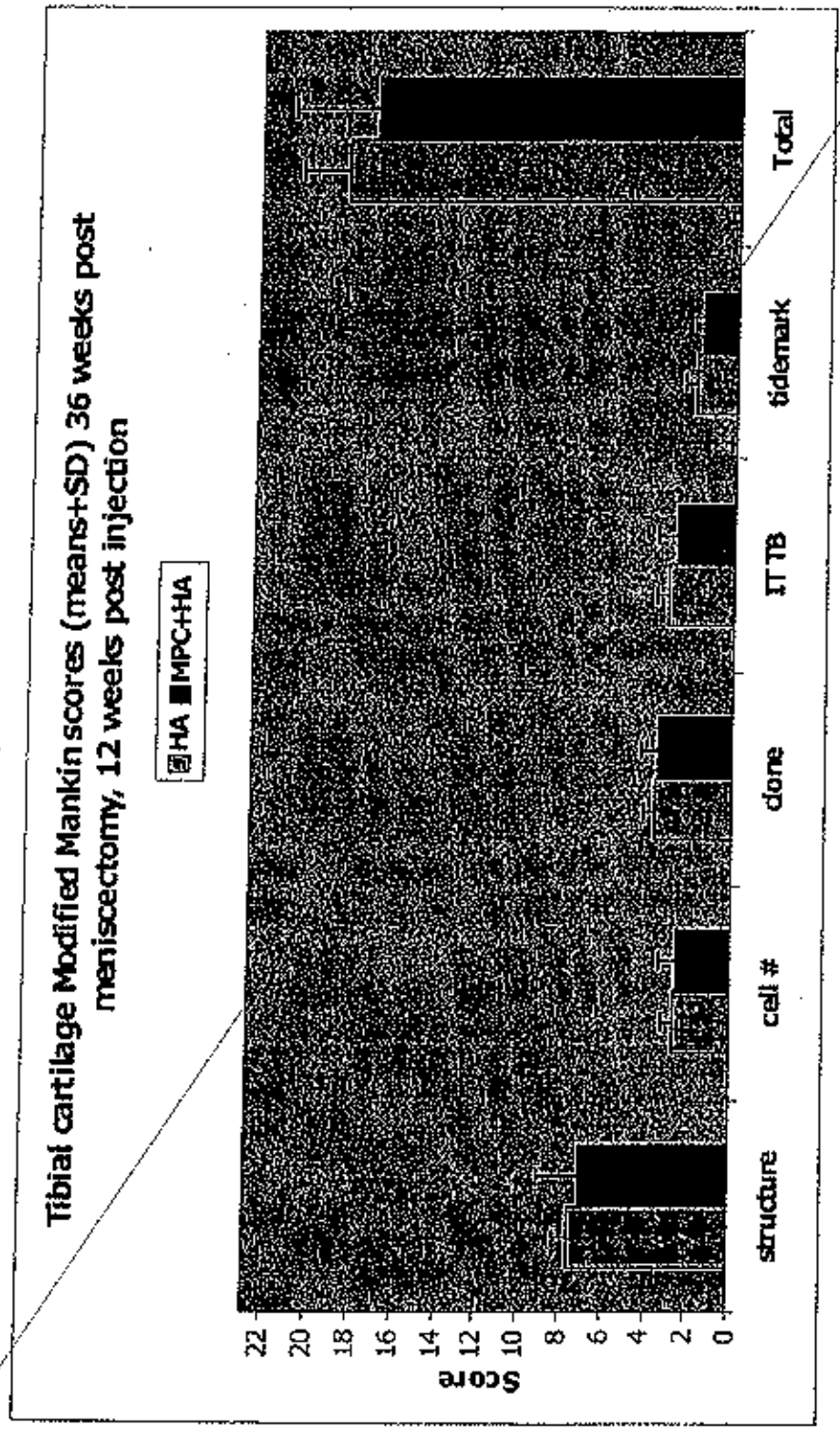


Figure 18 (continued)

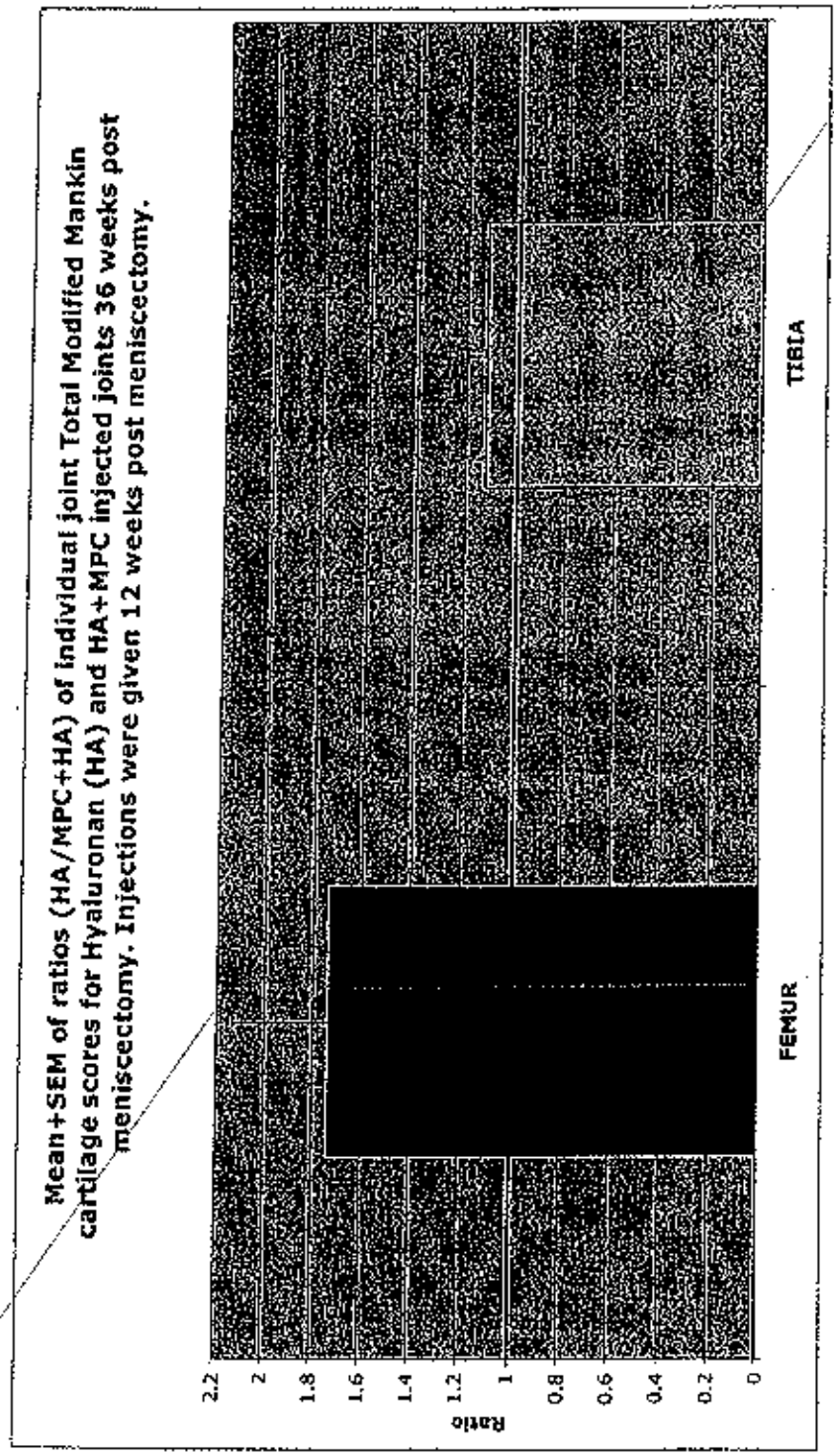
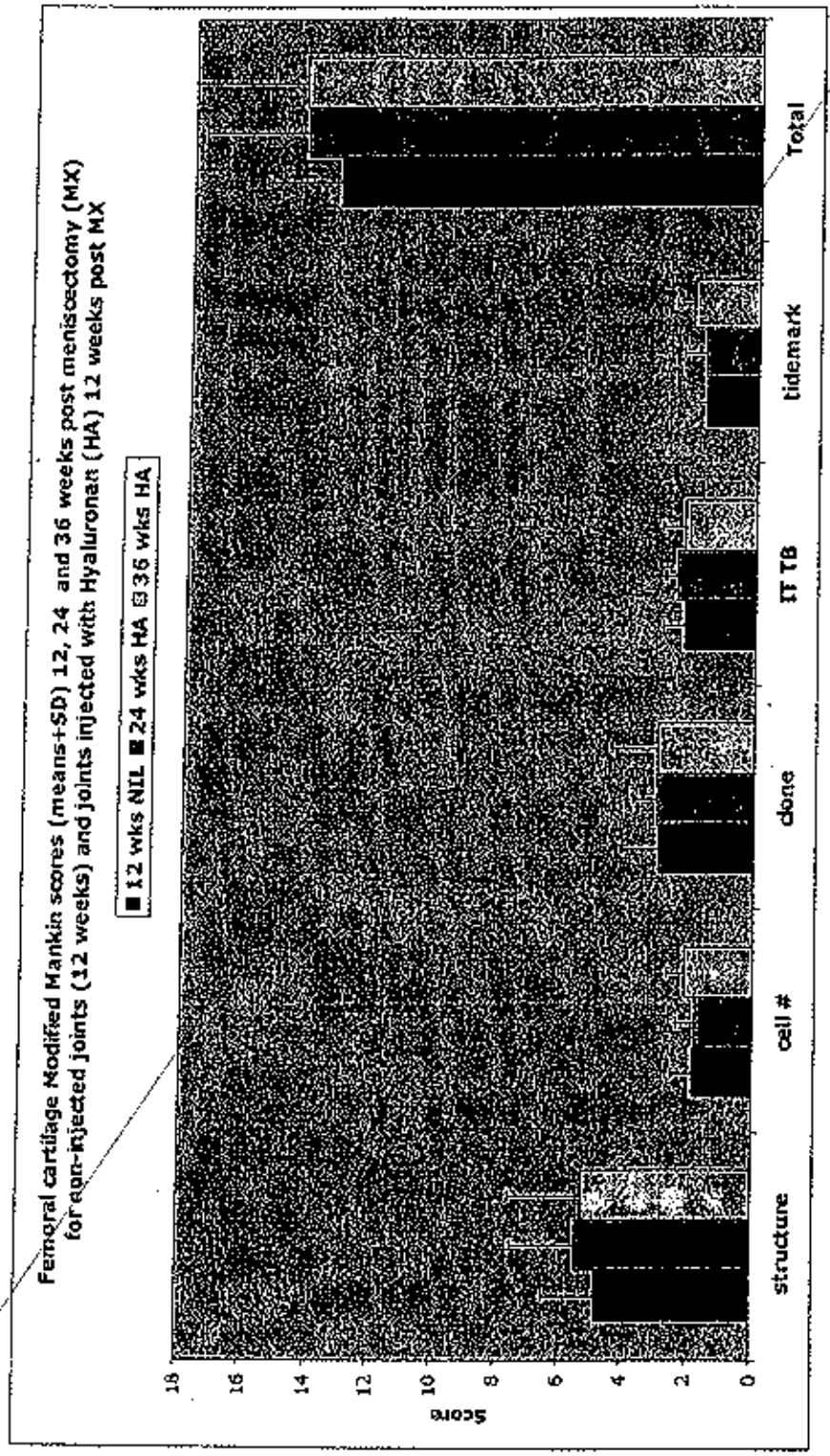

Mean+SEM of ratios (HA/MPC+HA) of individual joint Total Modified Mankin cartilage scores for Hyaluronan (HA) and HA+MPC injected joints 36 weeks post meniscectomy. Injections were given 12 weeks post meniscectomy.
Ratio
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
FEMUR
TIBIA

Figure 19


Femoral cartilage Modified Mankin scores (means+SD) 12, 24 and 36 weeks post meniscectomy (MX)
for non-injected joints (12 weeks) and joints injected with Hyaluronan (HA) 12 weeks post MX
12 wks NIL
24 wks HA
36 wks HA
score
0
2
4
6
8
10
12
14
16
18
structure
cell #
clone
IT TB
tidemark
Total

HA

Figure 20

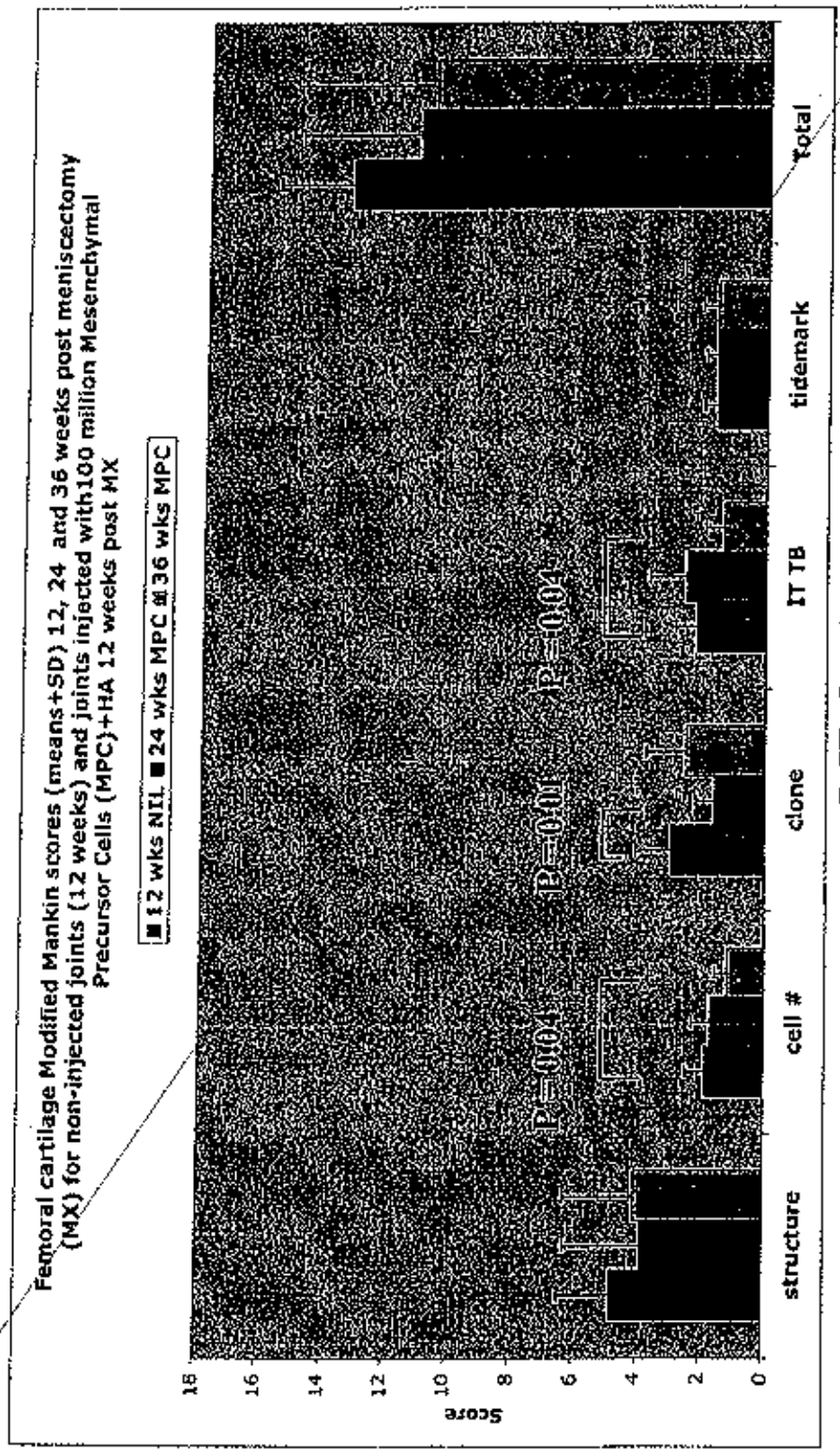
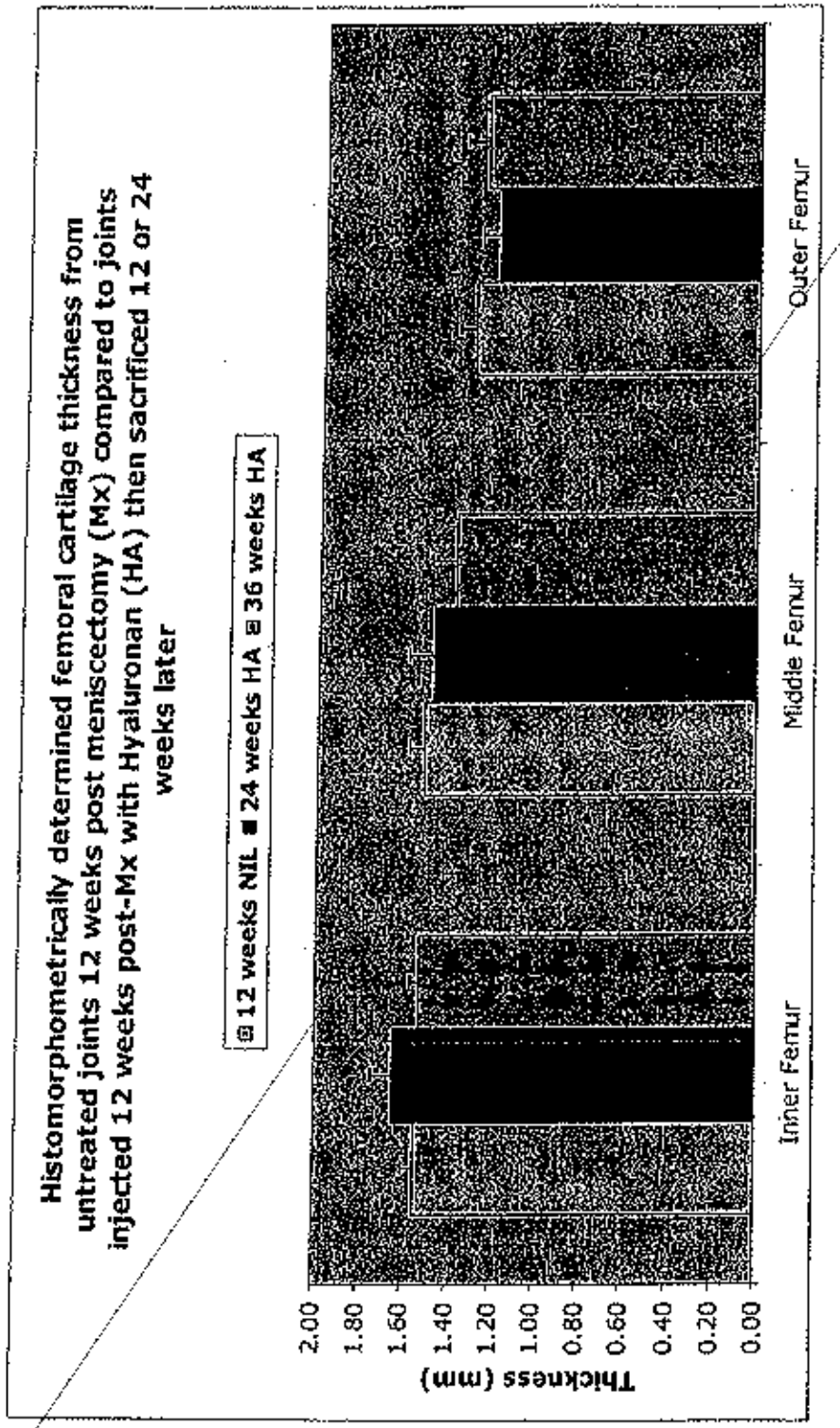


Figure 20 (continued)


Histomorphometrically determined femoral cartilage thickness from untreated joints 12 weeks post meniscectomy (Mx) compared to joints injected 12 weeks post-Mx with Hyaluronan (HA) then sacrificed 12 or 24 weeks later
12 weeks NIL
24 weeks HA
36 weeks HA
Thickness (mm)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Inner Femur
Middle Femur
Outer Femur

HA

Figure 22

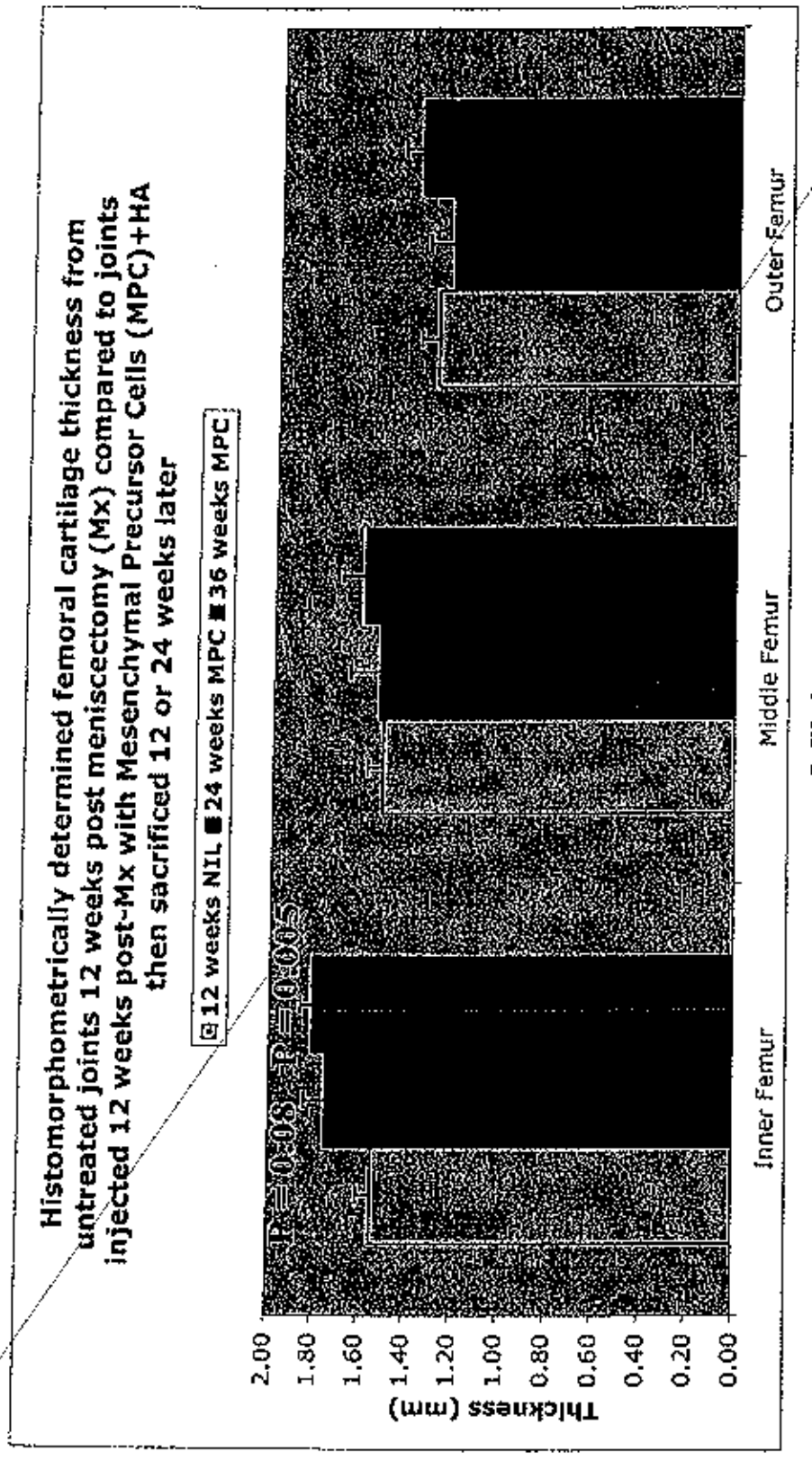
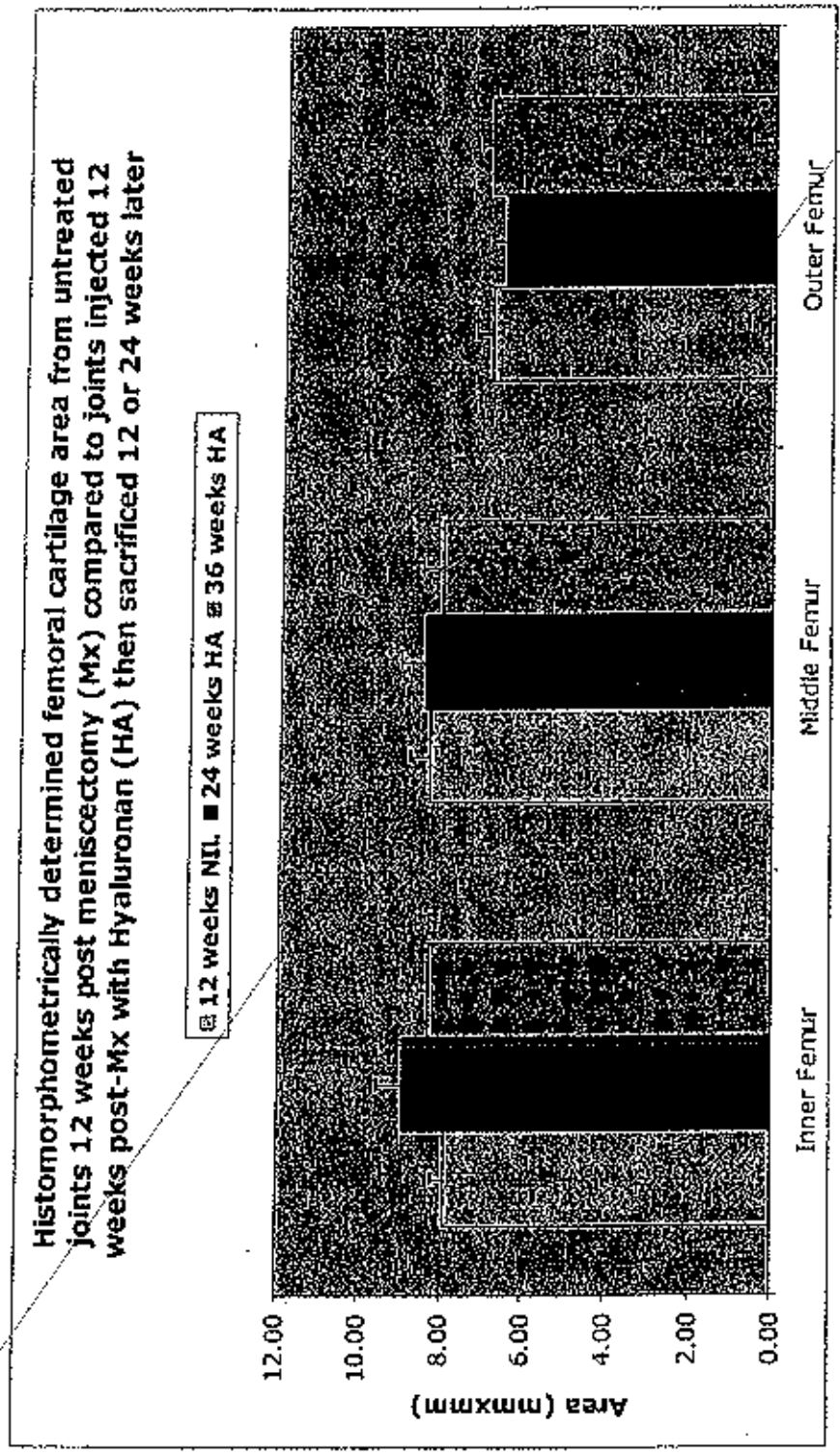


Figure 22 (continued)


Histomorphometrically determined femoral cartilage area from untreated joints 12 weeks post meniscectomy (Mx) compared to joints injected 12 weeks post-Mx with Hyaluronan (HA) then sacrificed 12 or 24 weeks later
12 weeks NIL
24 weeks HA
36 weeks HA
Area (mmxmm)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Inner Femur
Middle Femur
Outer Femur

HA

Figure 23

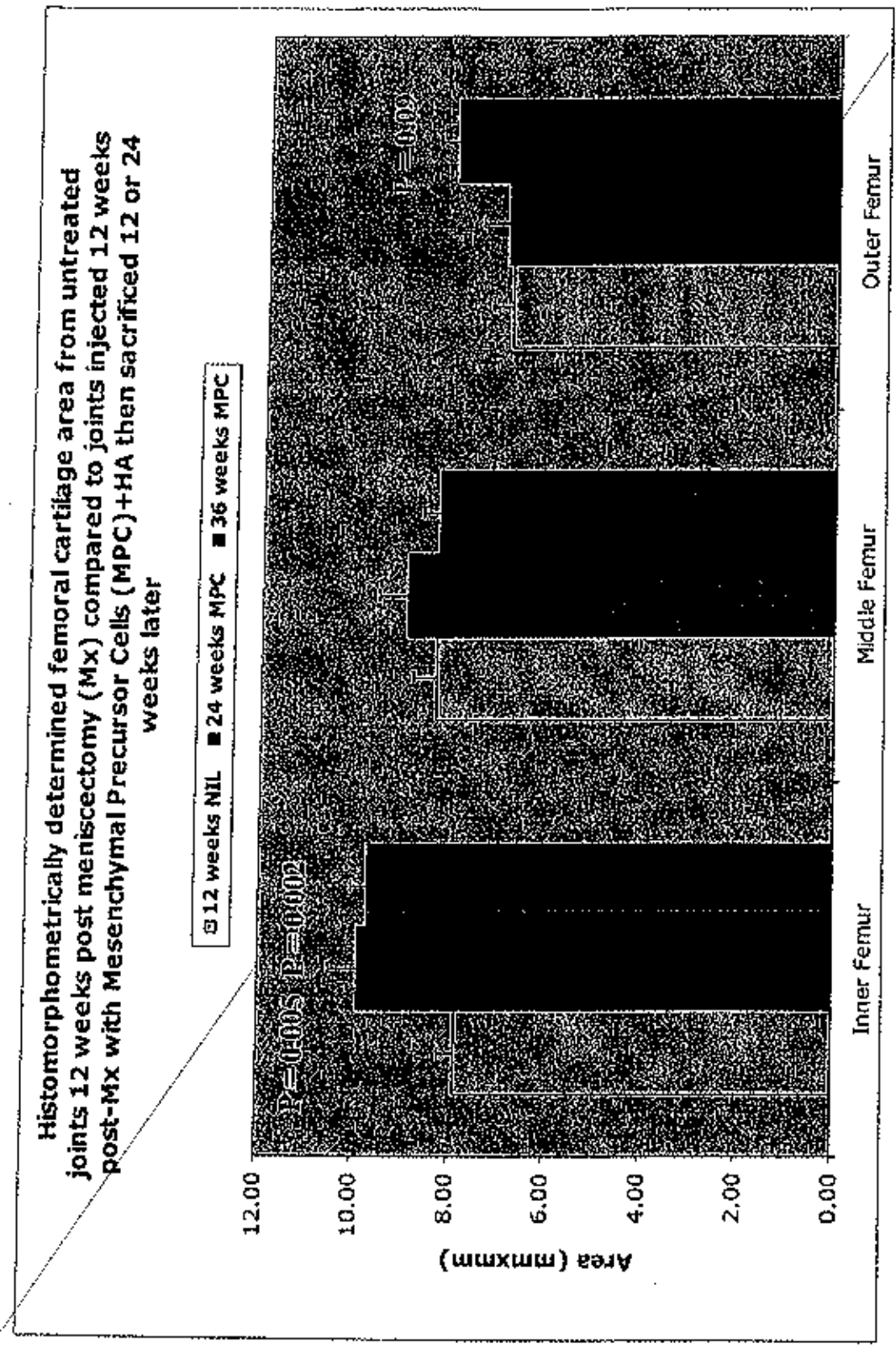
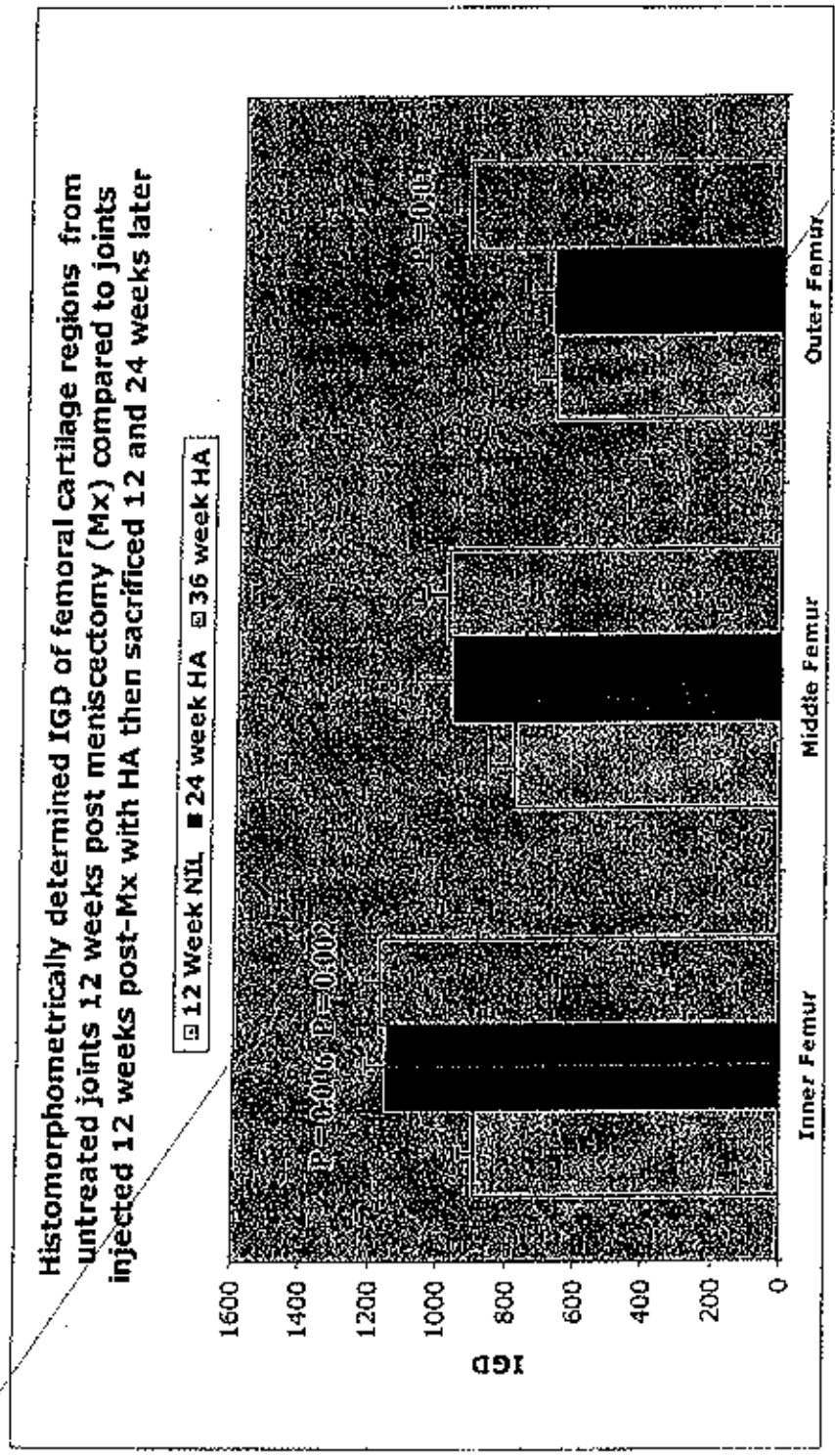
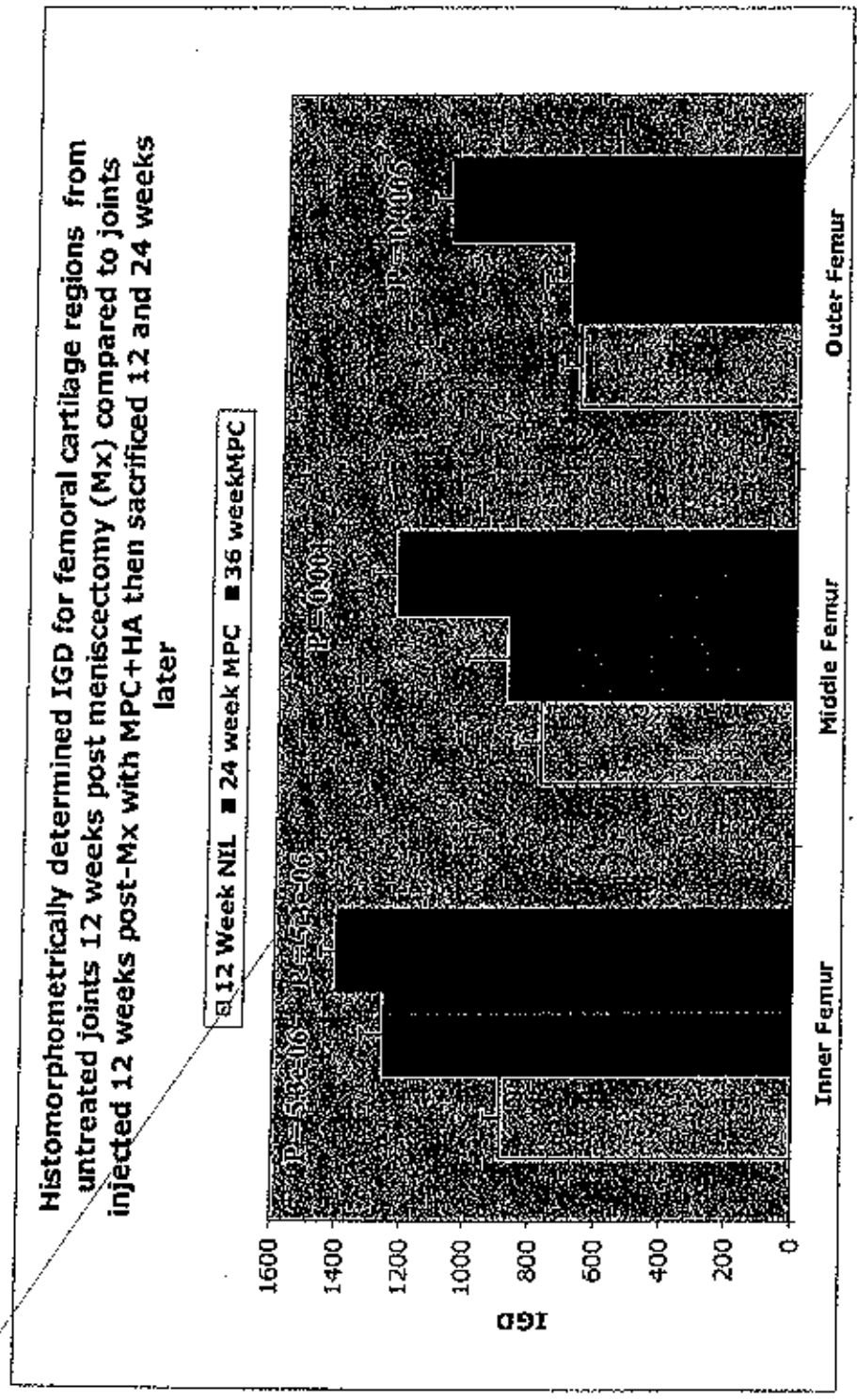


Figure 23 (continued)


Histomorphometrically determined IGD of femoral cartilage regions from untreated joints 12 weeks post meniscectomy (Mx) compared to joints injected 12 weeks post-Mx with HA then sacrificed 12 and 24 weeks later
12 Week Nil
24 week HA
36 week HA
P=0.016
P=0.002
P=0.03
IGD
1600
1400
1200
1000
800
600
400
200
0
Inner Femur
Middle Femur
Outer Femur

HA

Figure 24



MPC+HA

Figure 24 (continued)

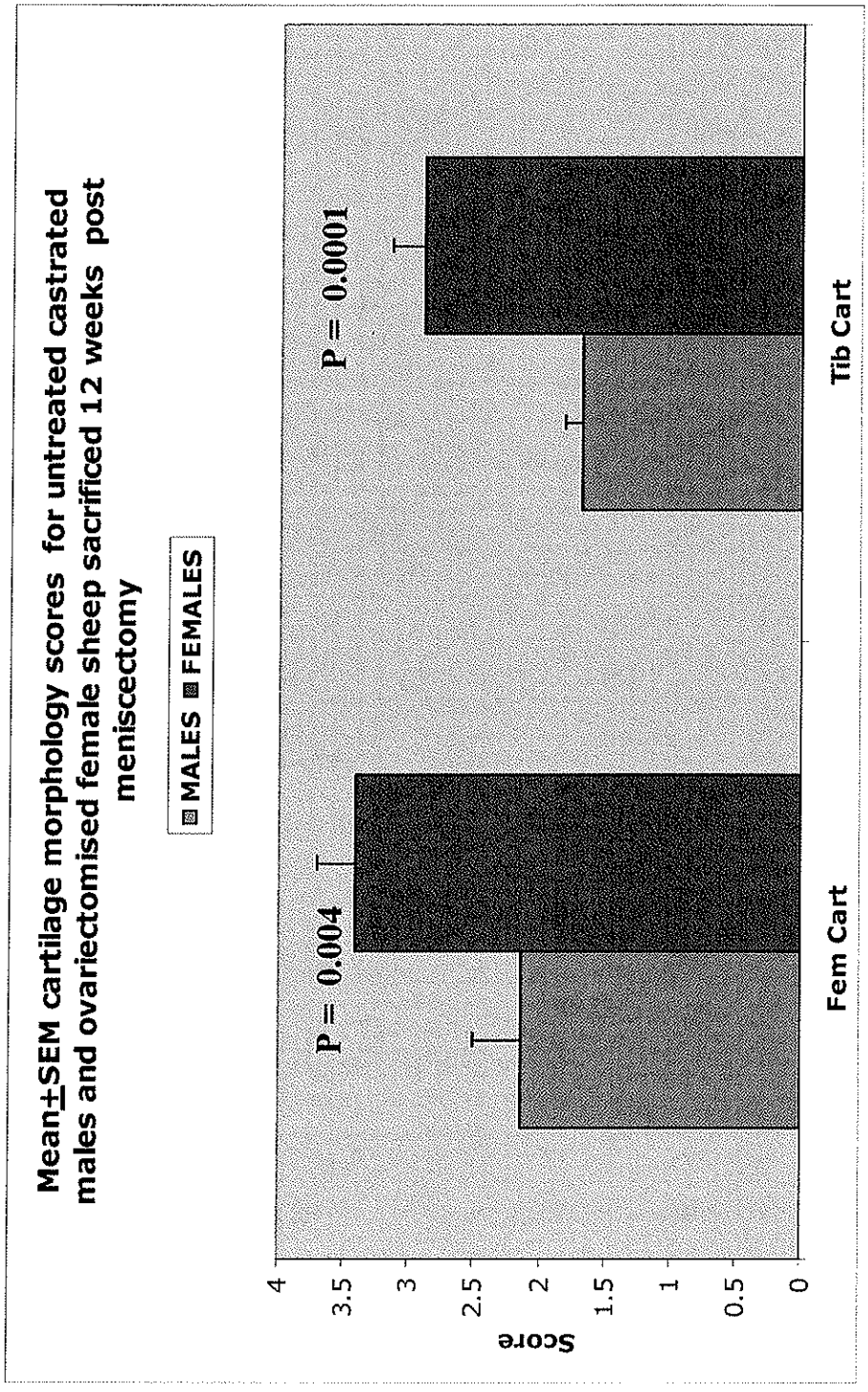

Mean±SEM cartilage morphology scores for untreated castrated males and ovariectomised female sheep sacrificed 12 weeks post meniscectomy
MALES
FEMALES
P = 0.004
P = 0.0001
Score
4
3.5
3
2.5
2
1.5
1
0.5
0
Fem Cart
Tib Cart

Figure 16

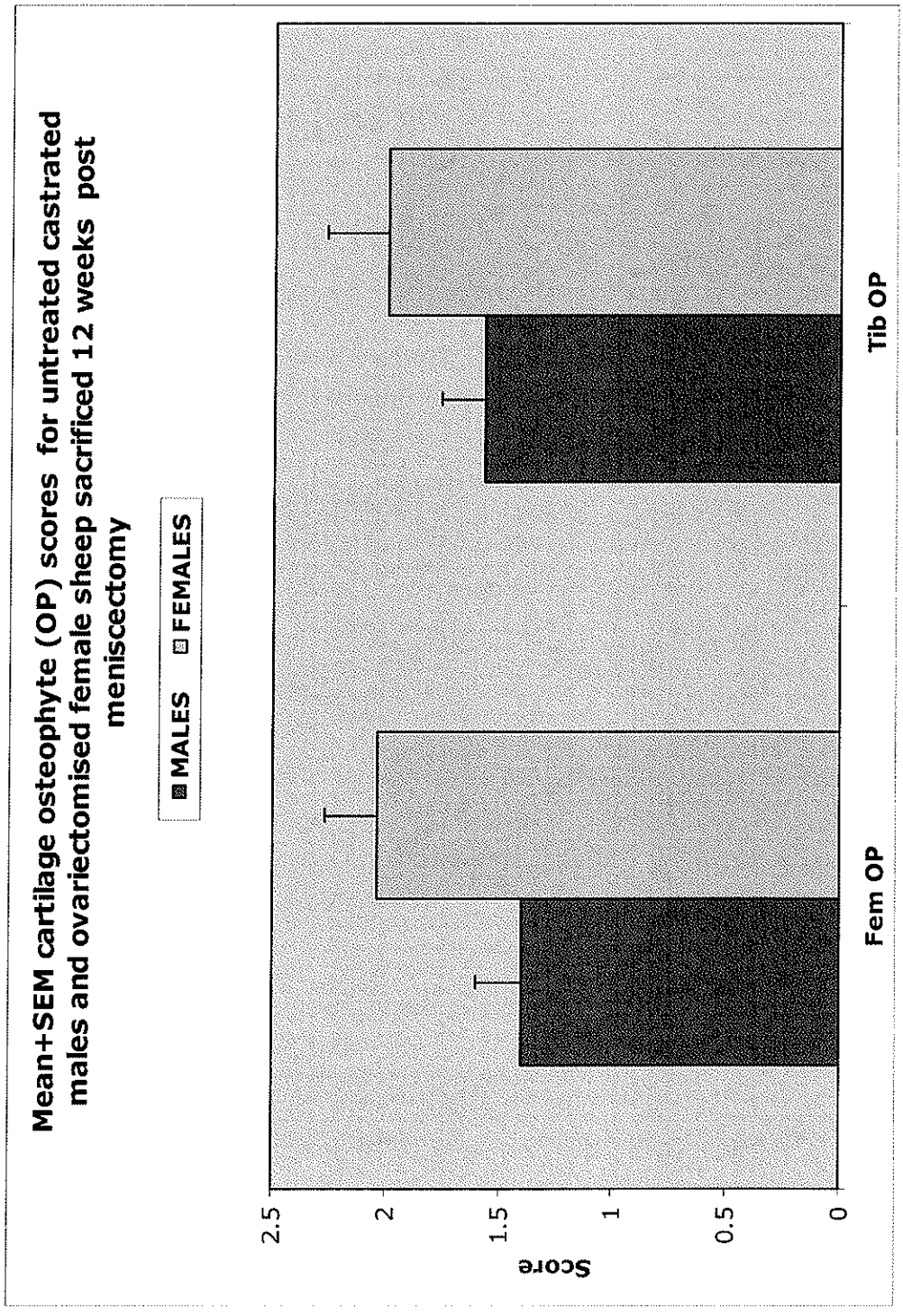
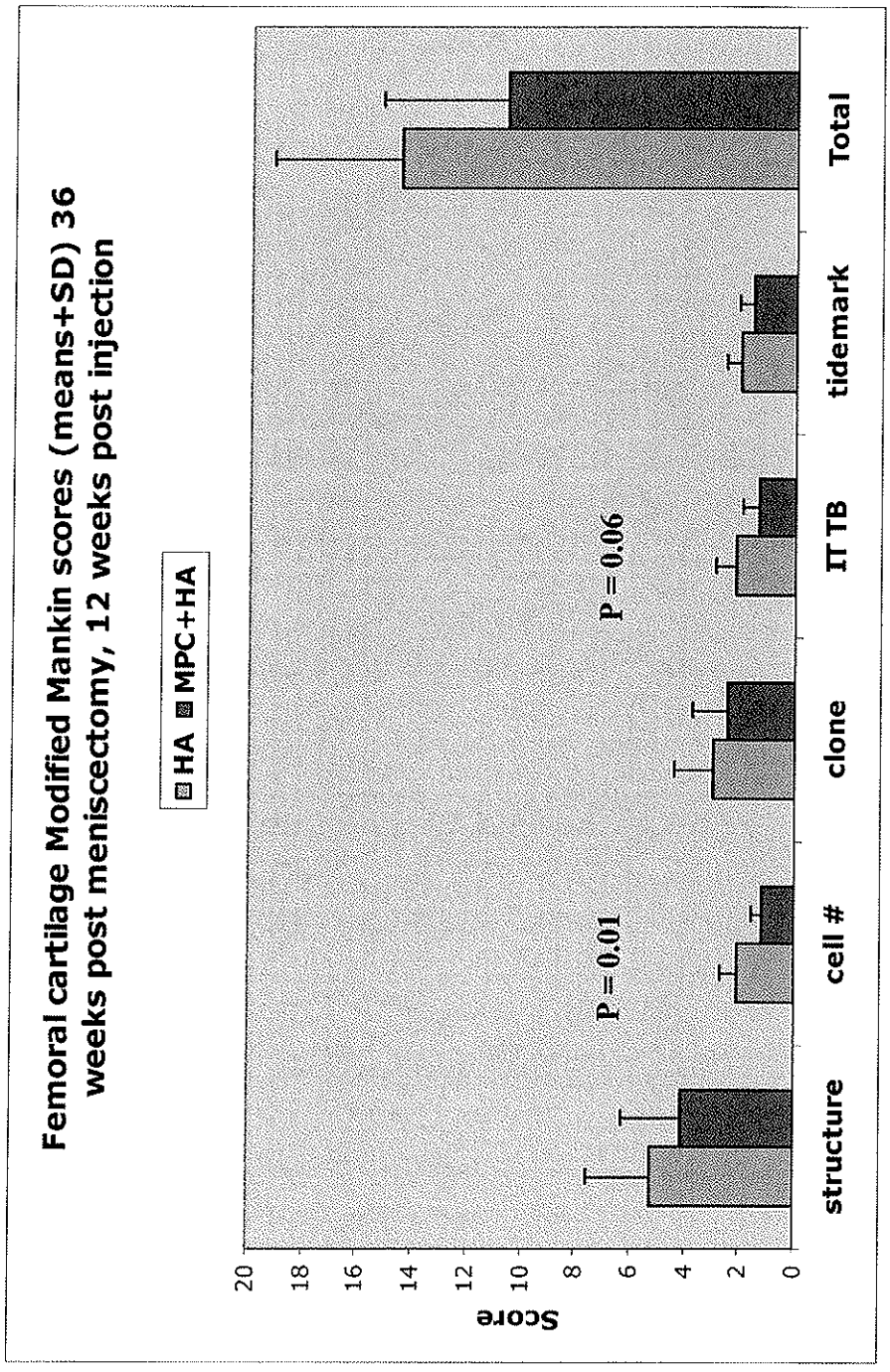

Mean+SEM cartilage osteophyte (OP) scores for untreated castrated males and ovariectomised female sheep sacrificed 12 weeks post meniscectomy
MALES
FEMALES
Score
2.5
2
1.5
1
0.5
0
Fem OP
Tib OP

Figure 17

Femur



HA Score > MPC Score

Figure 18

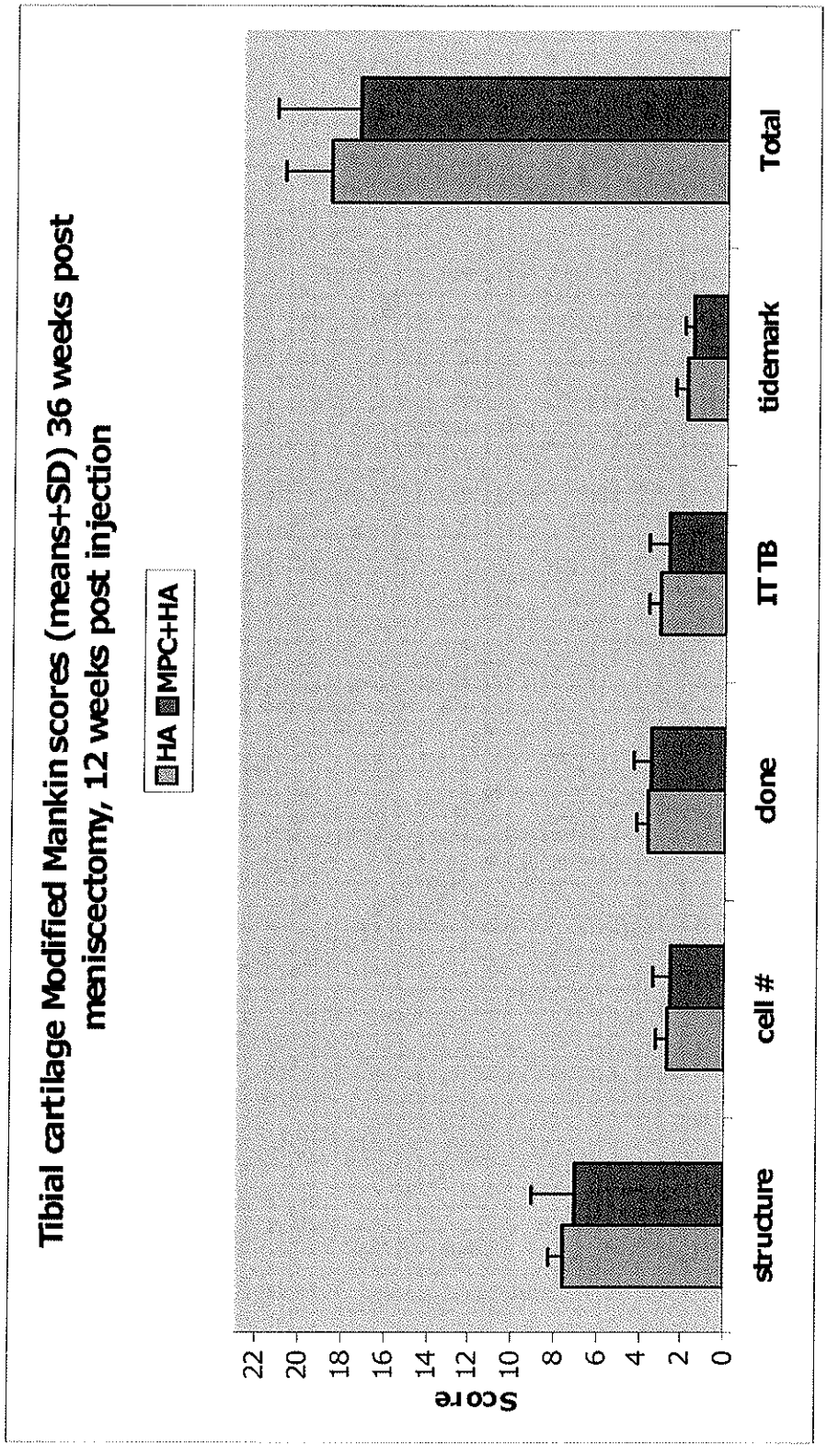


Figure 18 (continued)

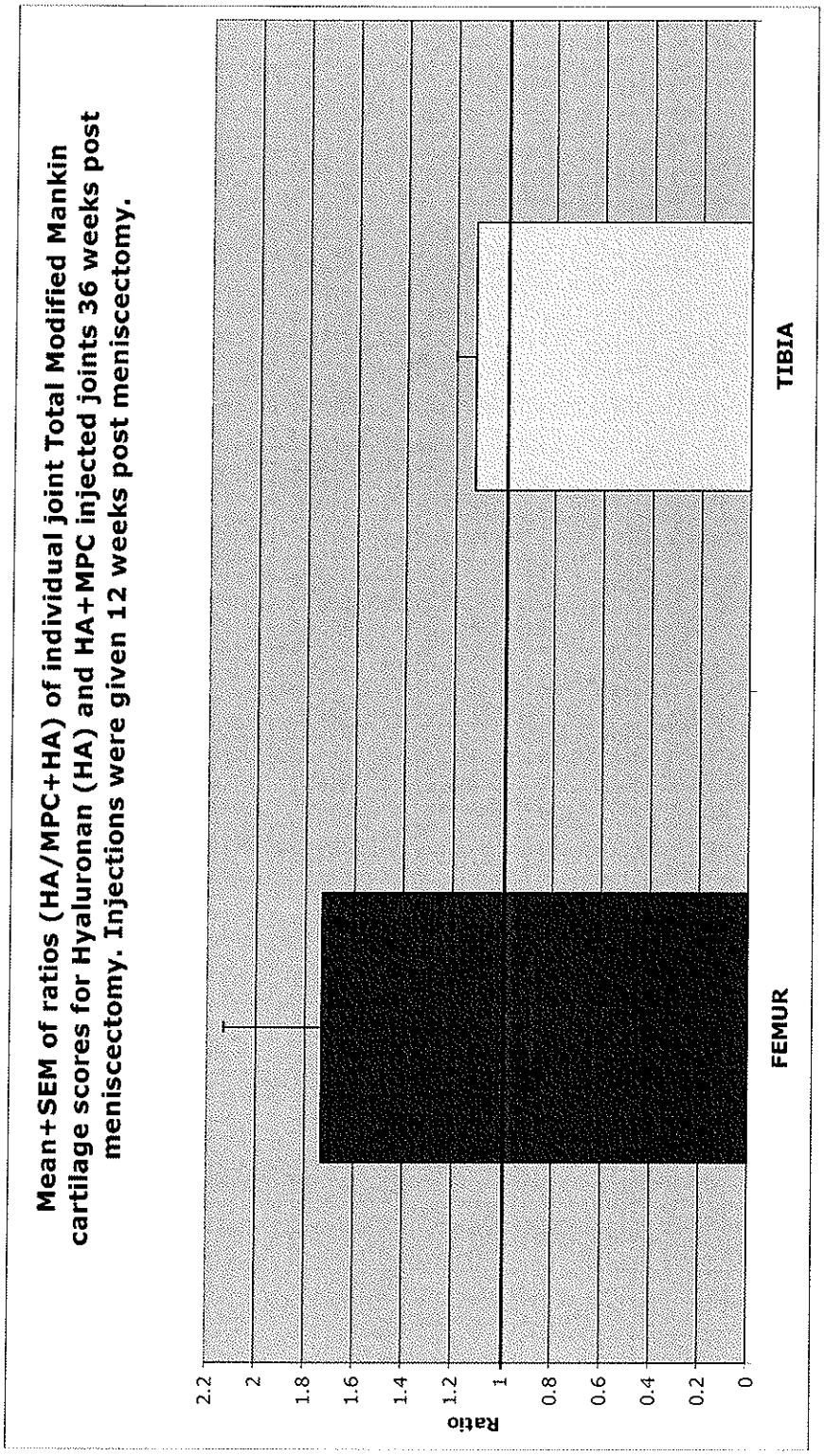
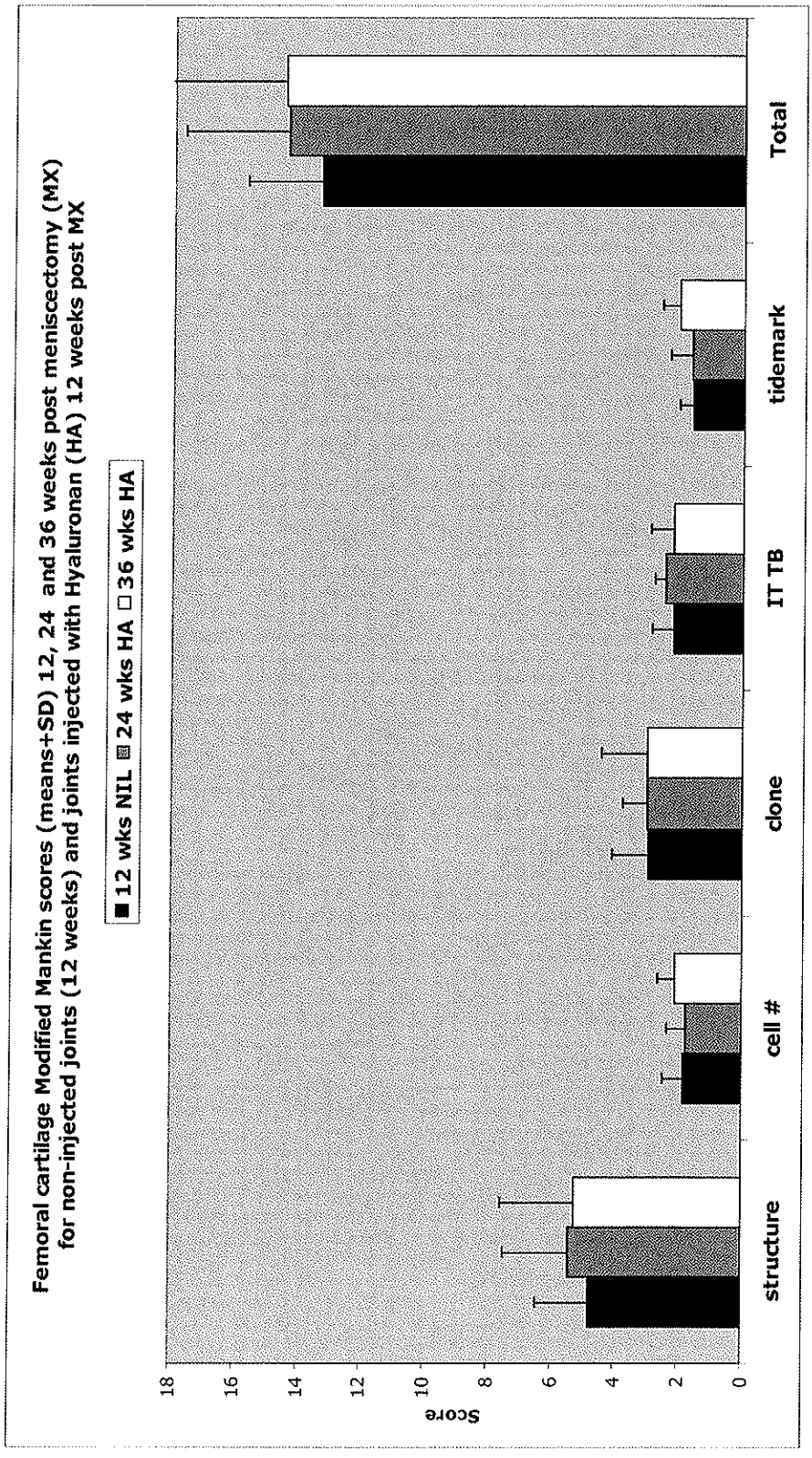

Mean+SEM of ratios (HA/MPC+HA) of individual joint Total Modified Mankin cartilage scores for Hyaluronan (HA) and HA+MPC injected joints 36 weeks post meniscectomy. Injections were given 12 weeks post meniscectomy.
Ratio
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
FEMUR
TIBIA

Figure 19


Femoral cartilage Modified Mankin scores (means+SD) 12, 24 and 36 weeks post meniscectomy (MX) for non-injected joints (12 weeks) and joints injected with Hyaluronan (HA) 12 weeks post MX
12 wks NIL 24 wks HA 36 wks HA
Score
0
2
4
6
8
10
12
14
16
18
structure
cell #
clone
IT TB
tidemark
Total

HA

Figure 20

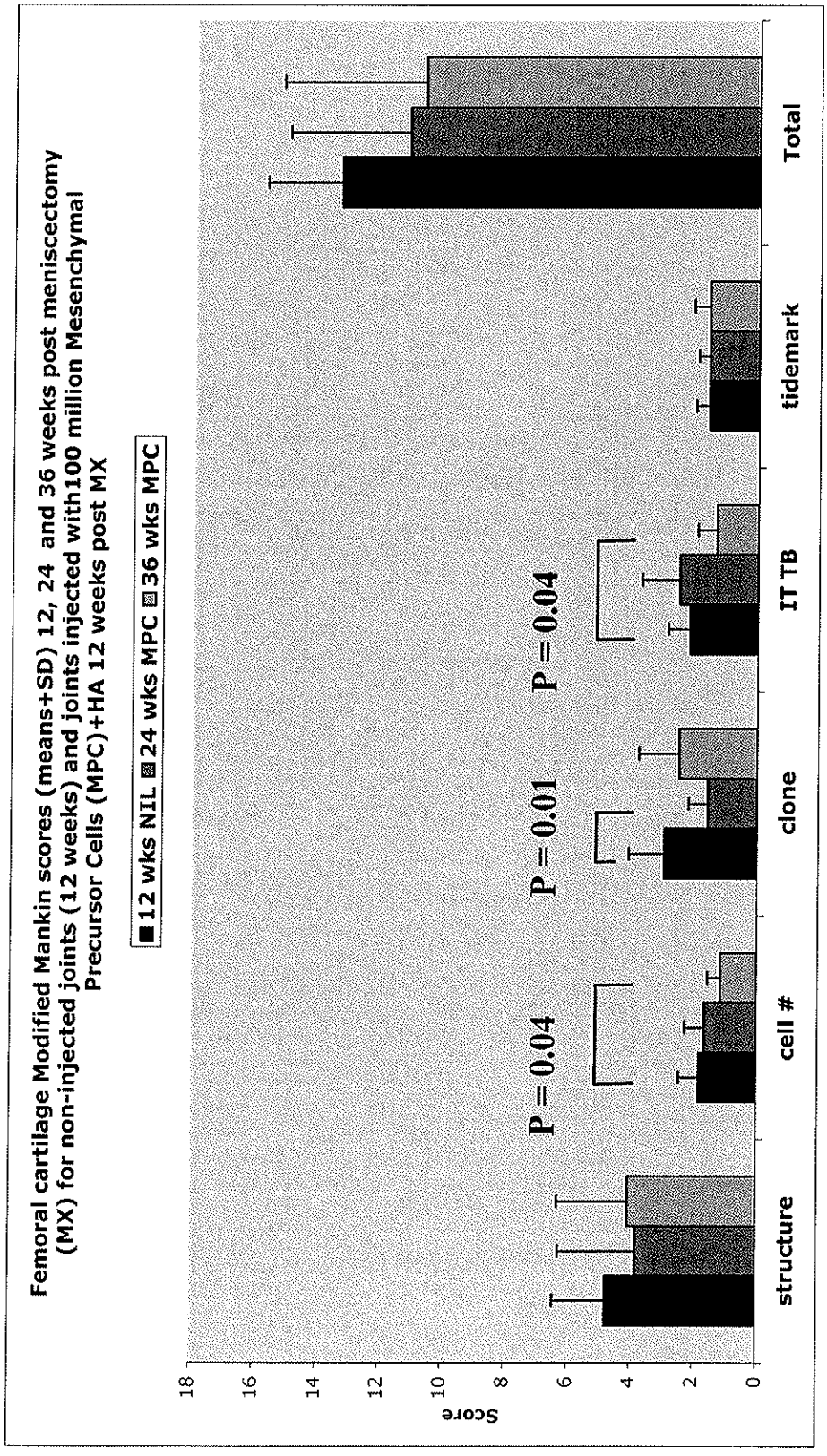


Figure 20 (continued)

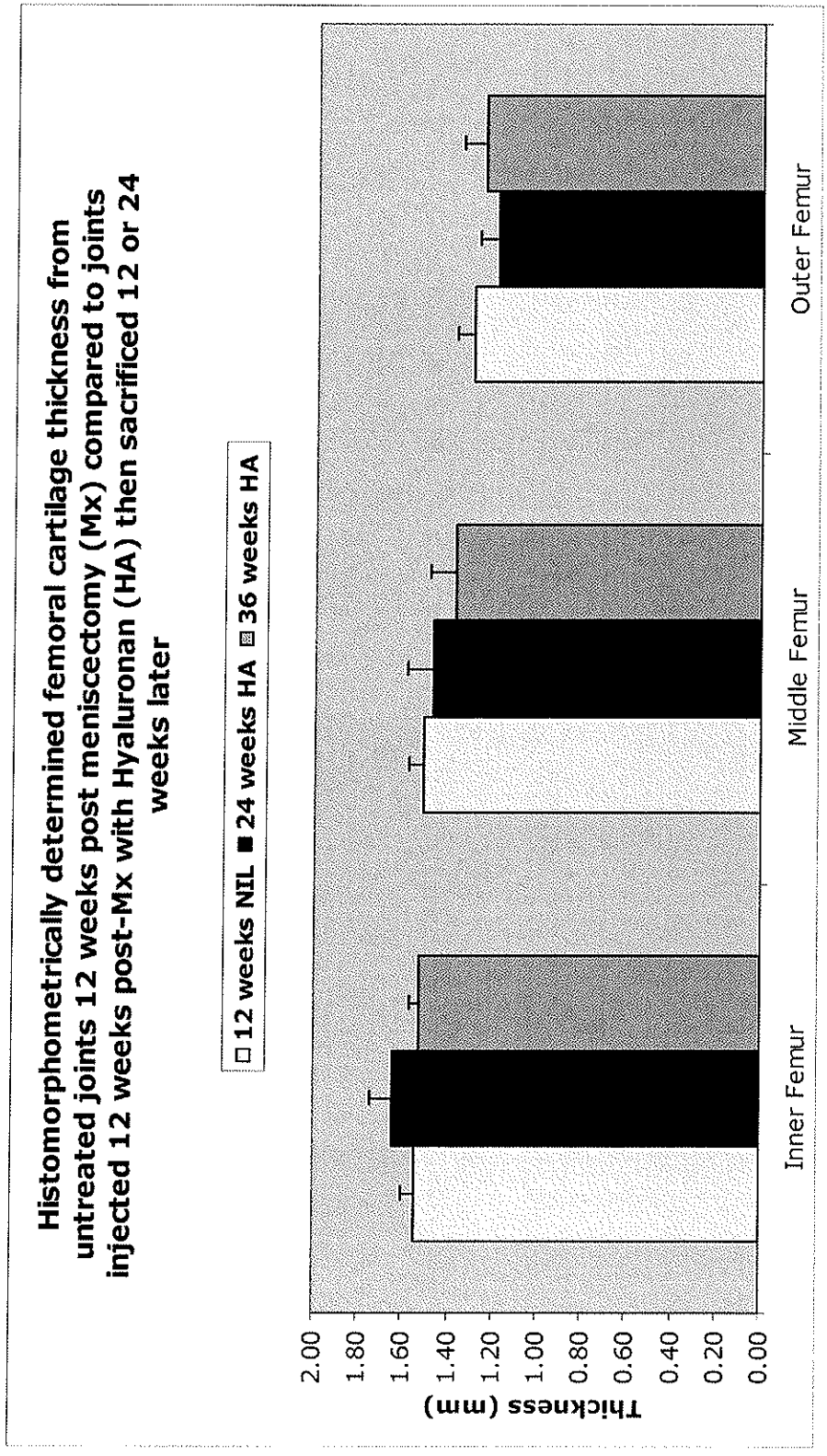

Histomorphometrically determined femoral cartilage thickness from untreated joints 12 weeks post meniscectomy (Mx) compared to joints injected 12 weeks post-Mx with Hyaluronan (HA) then sacrificed 12 or 24 weeks later
12 weeks NIL
24 weeks HA
36 weeks HA
Thickness (mm)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Inner Femur
Middle Femur
Outer Femur
HA

Figure 22

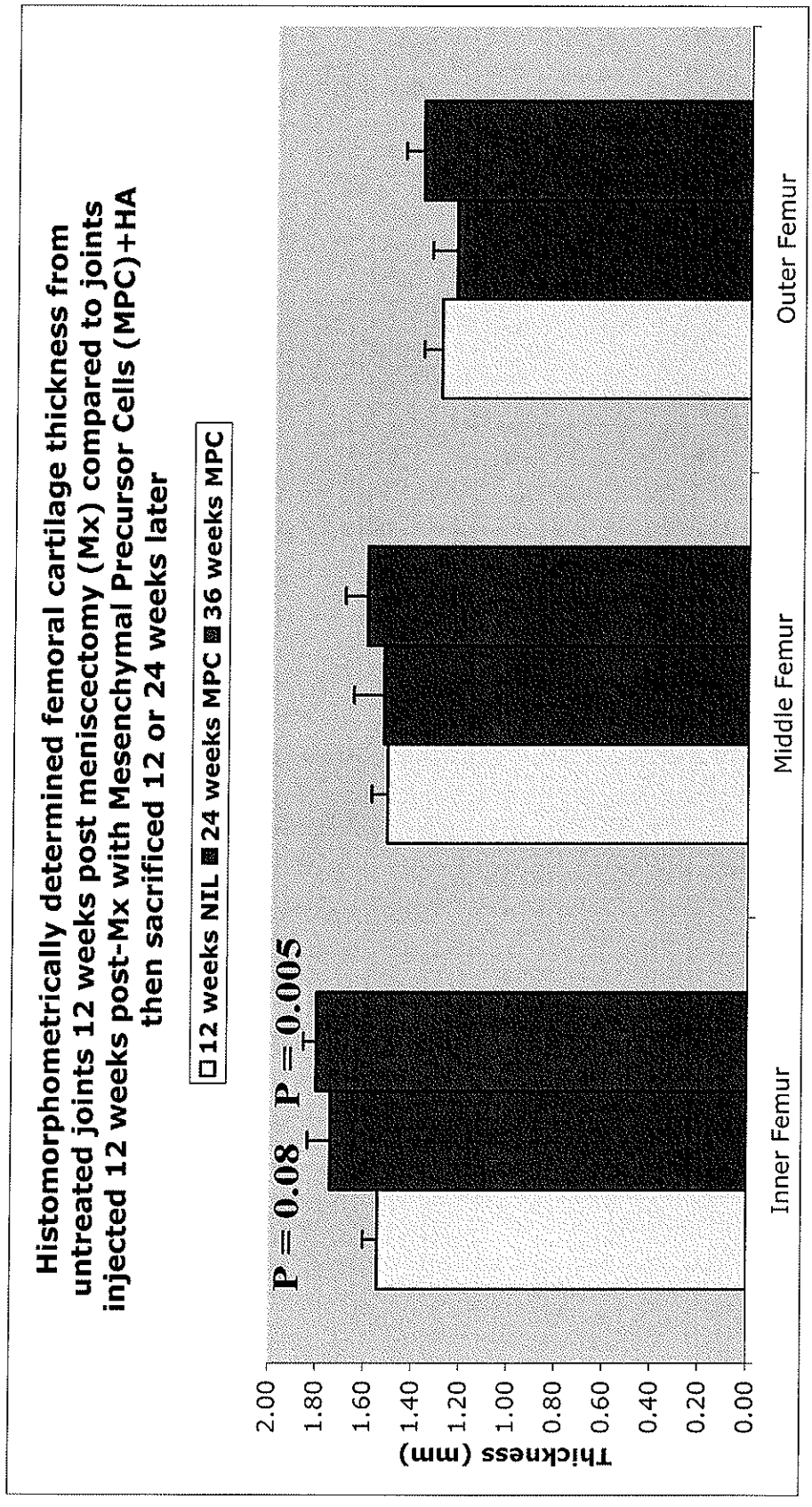


Figure 22 (continued)

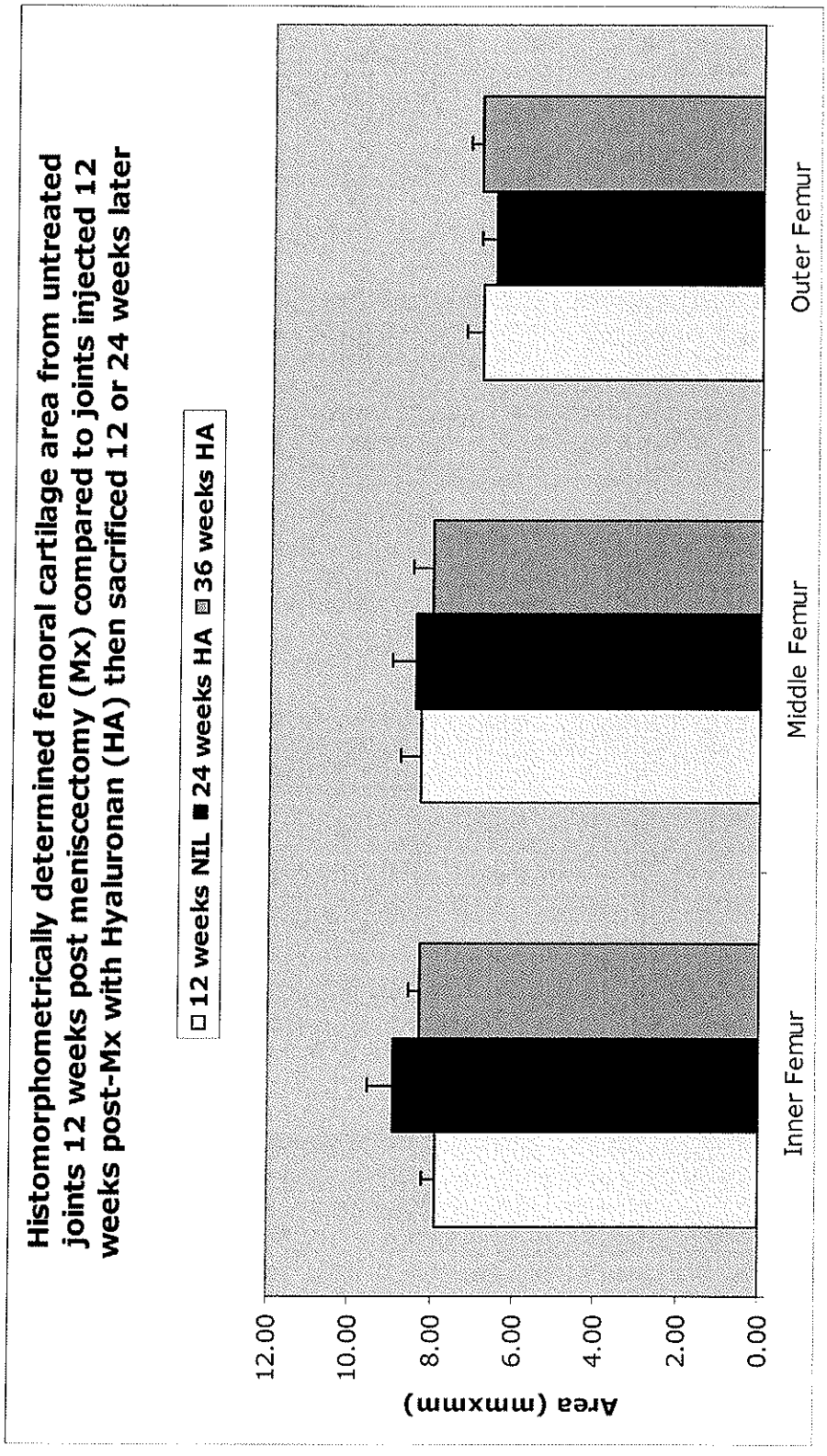

Histomorphometrically determined femoral cartilage area from untreated joints 12 weeks post meniscectomy (Mx) compared to joints injected 12 weeks post-Mx with Hyaluronan (HA) then sacrificed 12 or 24 weeks later
12 weeks NIL
24 weeks HA
36 weeks HA
Area (mmxmm)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Inner Femur
Middle Femur
Outer Femur
HA

Figure 23

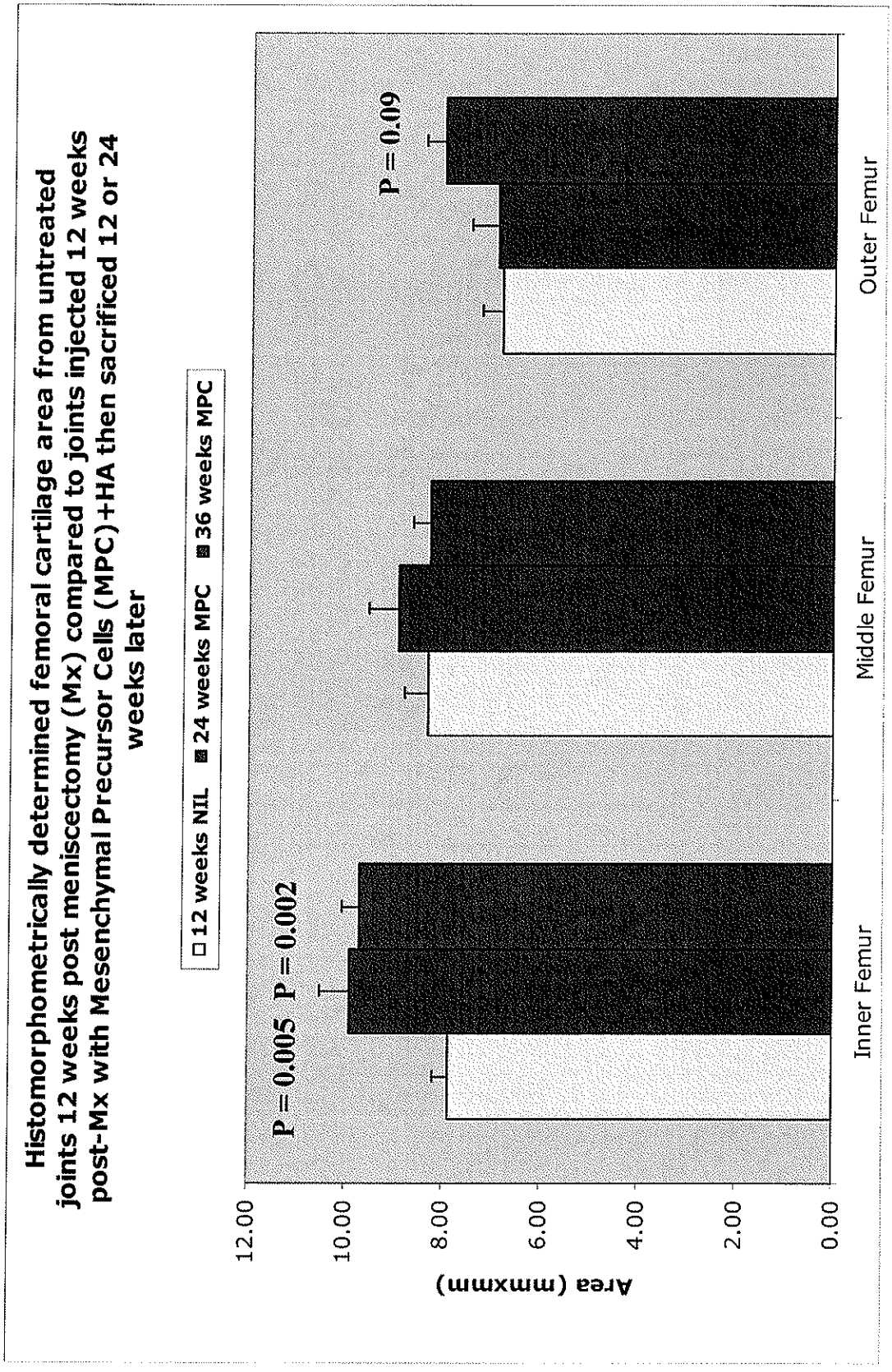


Figure 23 (continued)

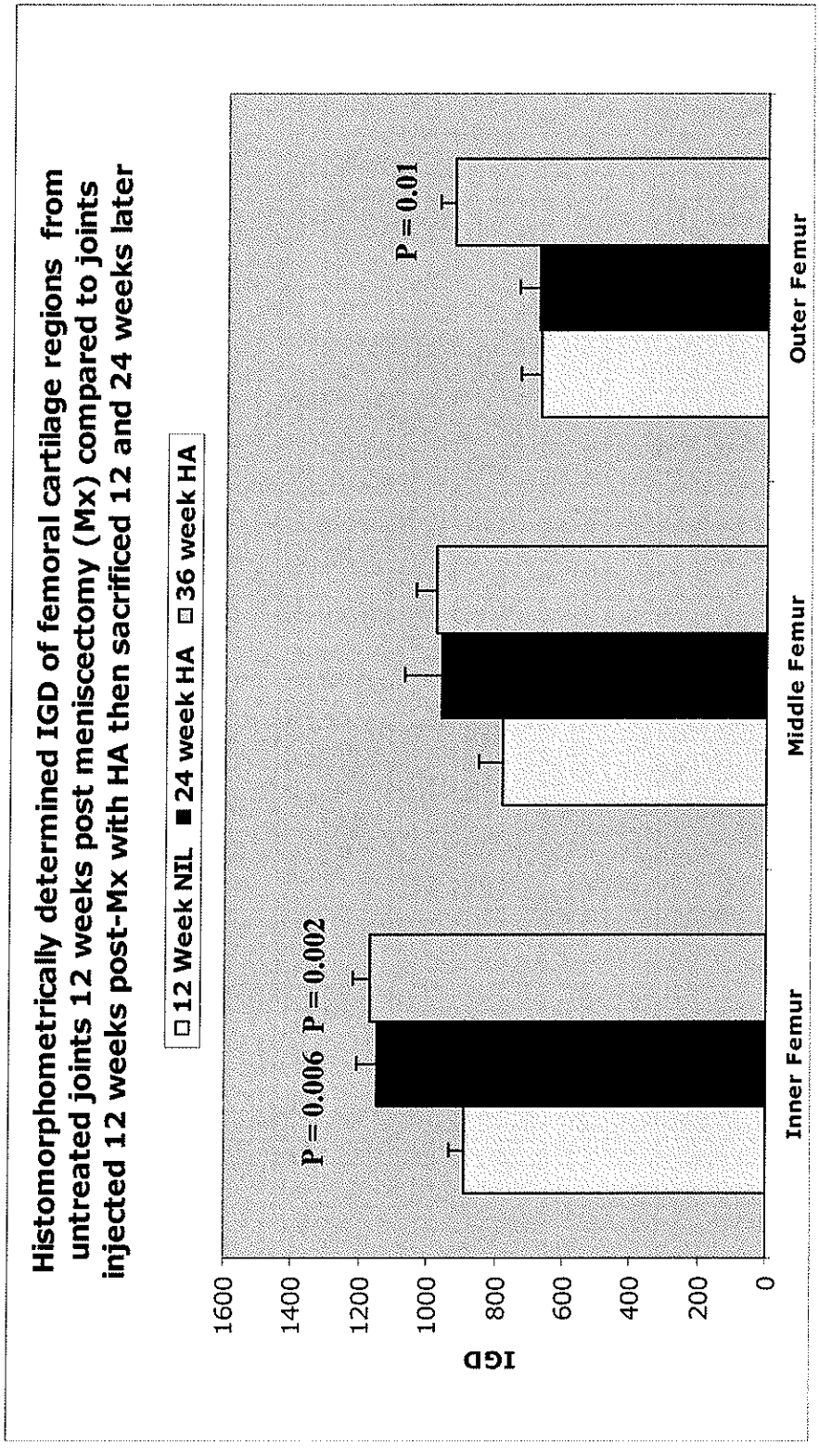

Histomorphometrically determined IGD of femoral cartilage regions from untreated joints 12 weeks post meniscectomy (Mx) compared to joints injected 12 weeks post-Mx with HA then sacrificed 12 and 24 weeks later
12 Week NIL
24 week HA
36 week HA
IGD
1600
1400
1200
1000
800
600
400
200
0
P = 0.006
P = 0.002
P = 0.01
Inner Femur
Middle Femur
Outer Femur
HA

Figure 24

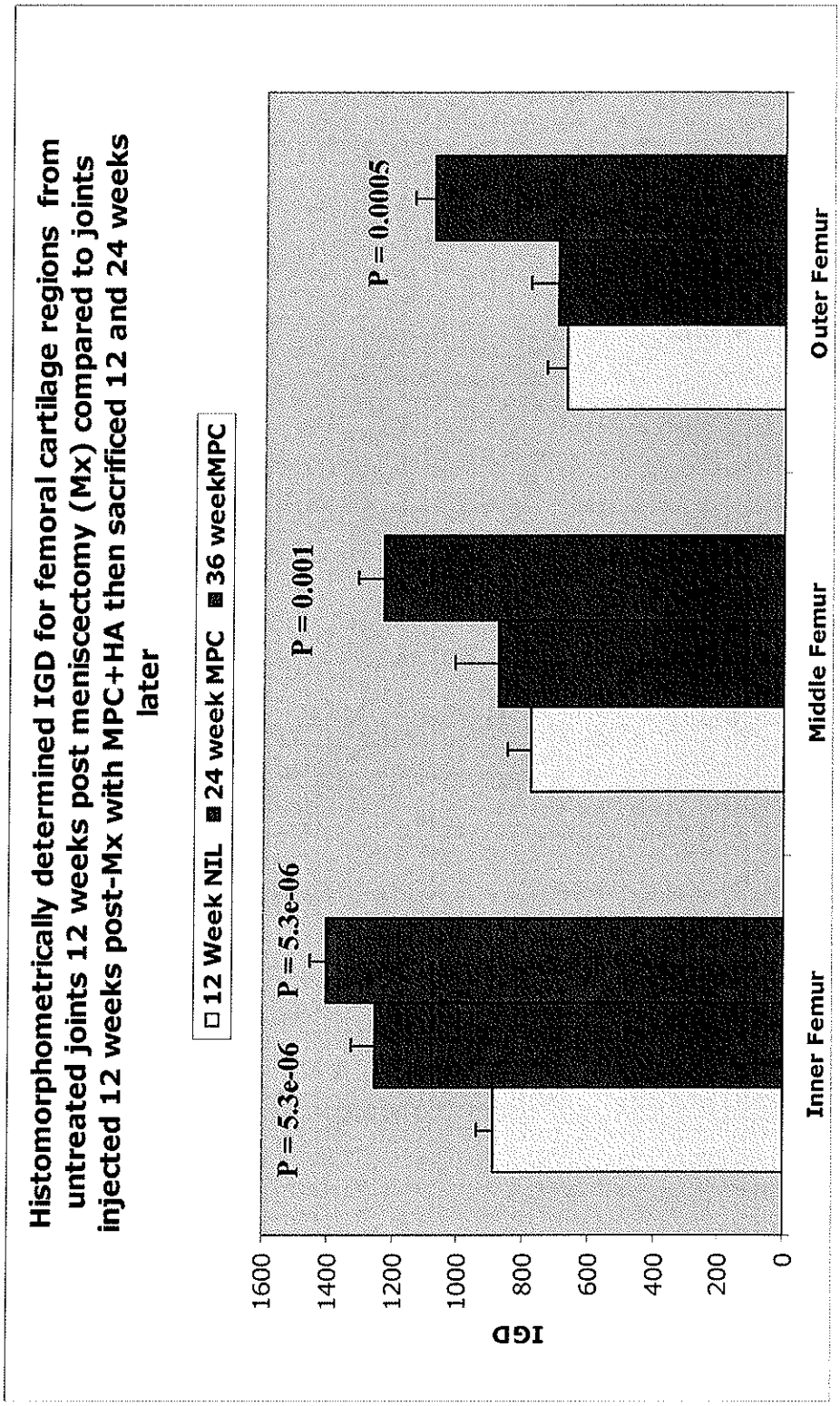


Figure 24 (continued)