

Arthroscopic treatment of gonarthrosis

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Gonartrozun artroskopik tedavisi

Haziran 1988-Aralık 1990 arasında gonartroz nedeniyle artroskopik debridman veya artroskopik abrazyon artroplastisi (\pm drillleme) yapılan 59 olgu değerlendirildi. Debridman grubunda (Grup I) takip süresi 1.5-30 ay, ortalama 9.2 ay, abrazyon artroplastisi grubunda (Grup II) ise 1.5-24 ay, ortalama 7.5 ay idi. Heriki gruptaki tüm hastalar subjektif olarak düzelmisti. Birinci gruptaki 39 hastadan 30'unun aktivite düzeyi artmış, 6'sının aynı kalmış, ve 3'ünün ise düşmüştü. İkinci grupta yer alan 20 hastadan 12'sinin aktivite düzeyi artarken, 8'inin düzeyi aynı kalmıştı. Erken dönemde hem artroskopik debridman hem de artroskopik abrazyon artroplastisi ile yüksek oranda tatminkar sonuçlar alınabilmektedir. Sonuçlar açısından heriki teknik arasında belirgin bir fark yoktur. Post.op morbiditenin düşük olması ve hastanın günlük aktivitelerine daha erken dönebilmesi nedeniyle gonartrozda endike olan olgularda artroskopik debridman tercih edilmelidir.

Anahtar kelimeler: Gonartroz, artroskopi

59 cases, who had arthroscopic debridement or arthroscopic abrasion arthroplasty (\pm drilling) for gonarthrosis between June 1988 and December 1990 were evaluated.

Follow-up period was 1,5 to 30 months (average 9,2 months) in the debridement group (Group I) and 1,5 to 24 months (average 7,5 months) in the abrasion arthroplasty group (Group II).

All patients became subjectively well. In the first group (39 patients in total) activity level increased in 30 patients, stayed the same in 6 patients and decreased in 3 patients. In the second group (20 patients in total) activity level increased in 12 patients, stayed the same in 8 patients. Early results are satisfactory in both methods. Results are not significantly different in any group. Arthroscopic debridement should be performed in indicated patients of gonarthrosis because of low postop morbidity and return to daily activities.

Key words: Gonarthrosis, arthroscopy

The principle surgical procedures in the treatment of gonarthrosis are; open debridement of the joint, and osteotomies on distal femur or proximal tibia.

Material and method

59 cases with gonarthrosis treated arthroscopically the Dept. of Orthopaedics and Traumatology, Univ. of İstanbul Medical Faculty during June 1988 and December 1990, who have had their last controls, are studied. They are studied in two groups according to treatment modalities. The first group had weight bearing as much as they could tolerate from

- * 39 patients (21 male, 18 female)
- * Age: 18-65 (mean 44,5)
- * Cartilage lesions (Outerbridge)
 - 3 Grade I
 - 12 Grade II
 - 12 Grade III
- * Previous operations
 - 9 open meniscectomies

Table I: Arthroscopic debridement (Group I)

- * 20 patients (11 male, 9 female)
- * Age: 18-65 (mean 37.7)
- * Drilling was performed in 12 patients
- * Cartilage lesions (Outerbridge)
 - 2 Grade II
 - 9 Grade III
 - 9 Grade IV

Table II: Arthroscopic abrasion arthroplasty (\pm drilling) (Group II)

- \neq Follow-up: 1,5-30 months (average 9,2 months)
- \neq Patients satisfaction: all cases
- \neq 3 patients stated that their pain increased after the two-year follow-up, but still they felt better than they were preoperatively.
- \neq Activity levels:
 - increased in 30 patients
 - remain same in 6 patients
 - decreased in 3 patients

Table III: Group I

the first postop day on. Contraversely, the second group had weight bearing after the 6th-8th week. At the last control examinations, the patients were categorized on pain and activity levels.

- ≠ Follow-up: 1,5-24 months (average 7,5 months)
- ≠ Patient satisfaction: all cases
- ≠ 1 patient became worse after the two-year follow-up, but still was improved when compared to his preoperative condition.
- ≠ Activity levels:
 - increase in 12 patients
 - remain same in 8 patients

Table IV: Group II

Discussion

There are basically two methods of arthroscopic treatment of gonarthrosis.

1. Arthroscopic debridement
2. Arthroscopic abrasion arthroplasty (and/or drilling)

We want to shortly discuss the results of these two arthroscopic methods.

Johnson (9, 11) found out that %75 of his patients had subjective relief two years after abrasion arthroplasty. %33 of them were pain-free; %12 had no complaints. %24 of patients in this series had motion-restriction. The reoperation rate was %11 after two years and %16 after five years. With the same method, Friedman et al. (4) reached % 60 clinical relief after one year, where as Chandler (3) published a rate of %80 after 1.8 years. In these two series, %6 and %16 of patients got worse after the treatment. In the first series, %83 of patients still had some pain.

Jackson (8), who was the pioneer of arthroscopic debridement, found out that %88 of his patients had relief and %68 had satisfactory results after 3.3 years. Sprague (13) published %84 satisfactory result after 13.6 months follow-up with the same method. Shahriree et al. (1) had %72 satisfactory result after 5-7 years. Richards and Lonergan (2) had a success rate of % 85 after 25 months with arthroscopic drilling. Pridie (12), the first surgeon to use drilling, had %65 satisfactory results with the open technique and Insall (5) had a satisfactory result of %70 with open debridement and drilling after 6.5 years.

There are only a few comparative studies about these two techniques in the literature. Bert and Muschke (1) reported %60 good and excellent results with arthroscopic debridement and %55 good and excellent results with arthroscopic abrasion arthroplasty plus arthroscopic debridement. The mean follow-up period was 5 years in both groups.

Conclusion

Early results are favorable with both methods. We recommend arthroscopic debridement, because postoperative morbidity is lower, and rapid return to daily activities is possible. Longer follow-up studies are needed to define the role of these methods in the treatment of gonarthrosis.

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