USE OF AUTOLOGOUS CONDITIONED SERUM (ORTHOKINE®) IN PATHOLOGY OF KNEE AND SHOULDER. OUR EXPERIENCE

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INTRODUCTION

The use of autologous conditioned serum in the pathology of degenerative knee, as well as in other pathologies of the locomotor system, is supported by different publications that show a clinic improvement of the treated patients.

INTRODUCTION

The goal of this study is to assess the subjective state of the patients that we have treated as well as "our feelings". For this we have not used any scoring chart but just an interview with the patient where we have asked him to assess and rate his outcome.

INTRODUCTION

MEASURING THE RATE OF SATISFACTION OF THE PATIENTS

MATERIAL & METHOD

1. Since December 2009 we have performed 917 treatments with ACS.
    1. 720 knees
    2. 132 shoulders (Starting in 2010)
    3. 65 hips, spine and other sites.
2. The first 100 treated knees and the first 100 treated shoulders have been checked to rate the subjective satisfaction of the patients.
3. Anamnesis and exploration of the patient.
4. Subjective assessment by the patient (Excellent, Good, Fair and Poor).

MATERIAL & METHOD

Knee. Features of the sample

1. 26 men and 74 women.
2. Avge age: 68.2 years (Min. 30 and max. 92)
3. 56 right knees, 39 left knees and 5 bilateral.
4. Average time after treatment 28,2 months (Max: 32 months and min: 27 months).

MATERIAL & METHOD

Shoulder. Features of the sample

1. 23 men and 77 women.
2. Avge age: 55.57 years (Min. 32 and max. 75)
3. 62 right shoulders, 33 left shoulders and 5 bilateral.
4. Average time after treatment 16,3 months (Max: 24 months and min: 6 months).
5. Average time of the clinic before treatment: 22 months (Max: 8 years and min: 6 months).
6. All the patients had been treated with NSAIDs, rehabilitation, etc.

MATERIAL & METHOD

Knee. Diagnosis

1. 60 tricompartimental arthrosis in varo (3 cases with rheumatic arthritis and 3 with psoriasic arthritis).
2. 8 tricompartimental arthrosis in valgo.
3. 18 internal unicompartimental arthrosis.
4. 8 femoropatelar unicompartimental arthrosis.
5. 3 ACL lessions with associated condral lessions.
6. 3 patelar tendinitis.

MATERIAL & METHOD

Shoulder. Diagnosis

1. Subcromial syndrome type I (Neer):…….. 6
2. Subcromial syndrome type II : ……56
3. Subcromial syndrome type III:…….. 5
4. Calcified shoulder: ……..33

MATERIAL & METHOD

Knee. Technique

1. Arthrosis: 6 intraarticular inyections (1 per week).
2. Patelar tendinitis: 4 inyections peri and intratendon.
3. Standard obtention of ACS.
4. Use of bacteriological filter.
5. 23G needle (excepctionally 21G in very obese persons).

MATERIAL & METHOD

Shoulder. Technique

1. Arthrosis: 6 subacromial injections (1 per week).
2. Alternate anterior and posterior approach.
3. No acromioclavicular infiltration unlees there is a positive infiltration test with local anesthesic.
4. Standard obtention of ACS.
5. Use of bacteriological filter.
6. 23G needle in all cases.

RESULTS

Knee. Subjective assessment by the patient.

1. Excellent: 16 (16%)
2. Good: 51 (51%)
3. Fair: 18 (18%).
4. Poor: 15 (15%)

RESULTS

Knee. Subjective assessment by the patient.

1. Only 7 patients have required knee arthroplasty (total or unicompartimental)
2. Multiple factors affect the subjective assessment by the patient.

RESULTS

Knee. “Our feelings”.

1. Improvement in the great majority of patients. Discordance between exploration and subjective assessment.
2. Greater improvement with lower arthrosis grade.
3. Greater improvement with lower age of patient.
4. Spectacular improvement in young patients with previous joint washing.
5. Sometimes improvement since the first injections (placebo effect?)

RESULTS

Knee. “Our feelings”.

1. **Cases with improvement in function but not in pain.**
2. **Spectacular improvement in treated cases with rheumatic and psoriasic arthritis (improvement in pain and joint effusion).**
3. **Not any complication with this treatment.**
4. **Very advanced arthrosis (grade IV) do not improve; ending most of them with knee arthroplasty.**

RESULTS

Shoulder. Subjective assessment by the patient.

1. Excellent: 60 (60%)
2. Good: 25 (25%)
3. Fair: 10 (10%)
4. Poor: 5 (5%)

RESULTS

Shoulder

We have only had to apply surgery (arthroscopic surgery) to 3 of the patients included in this review:

1. ***2 patients with SSGII and acromion type III of Bigliani (anteroinferior acromioplastia).***

2. ***1 patient with complete rupture of rotator cuff (arthroscopic suture of rotator cuff).***

RESULTS

Shoulder. "Our feelings"

1. Great result in most of the patients.
2. Slower result in cases with great joint locking at the beginning of the treatment.
3. Slower result in young patients.
4. Average result in cases of acromion type III of Bigliani and great calcified shoulder.
5. Unpredictable result in case of complete rupture of rotator cuff although we achieve a reasonable clinical improvement enough to avoid surgical treatment in older patients.

CONCLUSIONS

Knee

1. *The use of Autologous Conditioned Serum (Orthokine®) improves the quality of live of the patients affected by knee pathology (67% of good and excellent results).*
2. *The occurrence of complications is rare.*
3. *Easy technique without need for later rest.*
4. *Need for caution with very advanced arthrosis (information to the patient)*
5. *Prospective studies with regards to its role in the evolutive detention of the arthrosic pathology.*

CONCLUSIONS

Shoulder

1. *The use of Autologous Conditioned Serum (Orthokine®) is an effective treatment for the treatment of the subacromial pathology in shoulder, reducing to a great extent the number of patients that receive surgery.*
2. *The occurrence of complications is rare.*
3. *Easy tecnique without need for later rest.*
4. *The technique is made in the medical practice.*
5. *Poor results in cases of acromion type III of Bigliani where there is a clear mechanical factor.*
6. *Slower results in cases of great locking of the mobility arch at the beginning of the treatment.*
7. *Slower results in cases of great calcified shoulders.*

CONCLUSIONS

Knee and Shoulder

1. *The use of Autologous Conditioned Serum (Orthokine®) is an efficient treatment for knee and shoulder pathology.*
2. *Easy from the point of view of the technique used.*
3. *Ambulatory use in external practice.*
4. *Minimum percentage of complications.*
5. *A correct information to the patient is needed with regards to the technique and results (avoid false expectations).*

CONCLUSIONS

Knee and Shoulder

If future studies can prove that the treatment of arthrosis with ACS delays the condral degeneration and reduces inflamation, the treatment of arthrosis may change, having tools to prevent the disease or, at least, its progression.