ChildrensHospitalLosAngeles
Orthopaedic Surgery

HISTORY: The patient is a 15-year-old Caucasian male status post motor vehicle accident in 1989 with a subsequent growth arrest of his right lateral condyle in a valgus deformity. The patient is status post correction of deformity and limb lengthening using a Ilizarov technique. Ex-fix was removed on / /95. The patient was then placed in a long-leg brace with locking at the knee. The patient currently is undergoing physical therapy with occasional flexion of the knee. The patient is without any new complaints.

PHYSICAL EXAMINATION: Physical examination of the right lower extremity reveals patient has a large scar at the lateral aspect throughout the right lower extremity without his deformity in the right knee but otherwise skin is intact and there is no evidence of skin irritation. At this time the AFO foot plate is broken and patient is to be seen by Mr. Driden to fix the KAFO. The patient's leg length from ASIS to the medial malleoli on the right is 88 cm and left is 87.5 cm clinically. A scanogram was taken today which showed right lower extremity to be 80.2 cm and the left lower extremity to be 82.3 cm with a difference of 2.1 cm. The patient's previous scanogram was done on October 12, 1994 and at the time the right lower extremity was measured to be 74.4 cm and the left lower lower extremity to be 73.3 with a bone age of 10 possibly 11 at that time. No bone age x-ray was taken today.

ASSESSMENT/PLAN: Status post right lower extremity growth disturbance with leg length discrepancy. The patient at this time continues to have discrepancy in extremity of 2.1 cm, left greater than right, which is in an increase from 1.1 cm from October 1994. At this time we still have time to correct the change and no surgical intervention is needed at this moment but patient will need some sort of a correction at a later time. The patient is to return to clinic in July 1996. At that time we will obtain repeat scanogram to followup the leg length discrepancy.

RICHARD A.K. REYNOLDS, MD
JAE CHON, MD

JC :TL801 0206
D: 02/29/96
T: 03/04/96

CONSERVA, MAX
096-20-54

February 29, 1996

RICHARD A.K. REYNOLDS, MD
JAE CHON, MD

ChildrensHospitalLosAngeles
Orthopaedic Surgery

Max is 15 years old, with a bone age of 13 1/2 today. Scanogram was performed today, which showed that he has a 3.5 cm leg length descrepancy. This has change from a 2.1 cm leg length descrepancy as recently as February of this last year. This has been a tremendous growth spurt for him, however, this has complicated things in that his growth in the left leg has so far hindered the right leg and now an epiphysiodesis alone will probably be not effective.

The mother today, was thinking of letting him finish growing, and then, at the end of growth, equalize his legs. However, my estimate is that this would be close to a 9 cm leg length descrepancy. If this occurs, this would be a very dangerous lengthening for Max, since he had trouble tolerating this before and also, because of the precarious stability of the right knee, because he has no lateral femoral condyle or lateral tibial plateau, that I think a 9 cm lengthening is unwise. They want to make sure that he doesn't have an excessive shortening and are willing to split the difference to go to 4-5 cm of lengthening.

Therefore, they are going to be returning in four months time with a repeat scanogram and left wrist for bone age. At that time we will be able to make a better prediction of his growth in the left leg, as compared to the right, and determine what the ideal time to do the epiphysiodesis is. Mother is going to go home and discuss this with father and they will be returning as necessary.

RICHARD A.K. REYNOLDS, MD

RAR:TL168 9368
D: 06/28/96
T: 06/29/96

CONSERVA, MAX
096-20-54

June 27, 1996

RICHARD A.K. REYNOLDS, MD

AMBULATORY ORTHOPAEDICS

ChildrensHospitalLosAngeles
Orthopaedic Surgery

HISTORY: Max is well known to the clinic. He is currently here for routine follow-up. At this time, his leg length discrepancy on scanogram measures 3.5, left greater than right. In addition, he stated that his right knee brace is not working. Otherwise, he has no other complaints.

PHYSICAL EXAMINATION: He has obvious leg length discrepancy, left greater than right. His skin is intact and he has an unstable knee of the right side with large deformity. At this time, the options of possible physeal closure of the left distal femur and proximal tibia were discussed with the possible need for leg lengthening to the right lower extremity in order to equalize both legs.

Dr. Reynolds had recommended that we not wait until the end of growth and do a large lengthening because his expected leg length discrepancy will be between 5 and 9 cm. After long discussion, it was decided for Max to come back in four months to repeat the scanogram and possibly do a physeal fusion when he has reached the leg length discrepancy of approximately 5 cm.

RICHARD A.K. REYNOLDS, MD
A. GHIASSI, MD

AG :TL115 9091
D: 06/27/96
T: 06/28/96

CONSERVA, MAX
096-20-54

June 27, 1996

RICHARD A.K. REYNOLDS, MD
A. GHIASSI, MD

AMBULATORY ORTHOPAEDICS

HISTORY: This is a 15 1/2 year old who initially had an auto versus pedestrian injury sustaining a degloving injury of his right lateral lower extremity in 1989. He subsequently developed a valgus deformity and shortening of his right lower extremity and underwent an Ilizarov lengthening of his right femur with a medial physis closure in December of 1994.

PHYSICAL EXAMINATION: Today all his skin incisions are healed. He is unstable to valgus stress over his right knee. He is nontender to palpation. His right foot has a flexor deformity at rest and he has decreased sensation over the distal dorsum part of his foot and over his toes. Clinically his leg length discrepancy on the right measures at 87 cm and the left measures at 91 cm with a difference of 4 cm.

SCANOGRAM: The patient had a scanogram today. His right femur measured 43.6 cm and left measured 46.1. His right tibia measures 35 cm. His left tibia measures 37 cm. His right leg measures 78.6 cm and left leg measures 83 cm. He had an AP and lateral of his whole leg also. His Ilizarov lengthening was healing well.

On the AP view the patient is missing the lateral condyle of his distal femur and also missing the lateral plateau of his proximal tibia.

A left hand x-ray was done. His skeletal age is 15 years.

ASSESSMENT AND PLAN: The patient has a complex problem from the missing bone _____ from his right knee and leg length discrepancy with poor soft tissue envelope around his knee. An extensive 45 minute conversation and discussion occurred with Dr. Reynolds, the patient's mom and the patient. The patient was told that he has two options long term:

1. He could have a right knee fusion in the future. This would be done after an epiphysiodesis of the left lower extremity and a Ilizarov lengthening of his right lower extremity. The patient, Max, was receptive to this surgery. However, there is reservation from the mom and she also expressed reservation from the boy's father.

CONSERVA, MAX
096-20-54

October 10, 1996

RICHARD A.K. REYNOLDS, MD

(CONTINUED)

2. The second option consists of reconstructing the lateral distal femoral condyle and tibial lateral plateau so in the near future the patient may eventually have a total knee prosthesis.

The risks and benefits of both these procedures were discussed at length, including one surgery for the right lower extremity which would be a fusion versus multiple surgeries and reconstruction of the right lower extremity if the patient had a total knee prosthesis. Risks of infection and failure of the prosthesis were also discussed. Both the patient and the mother seemed uncertain as to which procedures they wanted. However, for the near future the discussion of the epiphysiodesis was stressed, so the Ilizarov lengthening for the right lower extremity would only be for 3 to 4 cm. The mother requested that they have some time to discuss this at home with the father and to see whether they would be in agreement with their son for an epiphysiodesis. Max currently prefers an epiphysiodesis but Dr. Reynolds prefers that the whole family would be in consensus. Therefore, no decision or scheduling will be done today for the surgery and mom was instructed to call us and schedule an appointment when this decision is made.

RB :TL859 2058
D: 10/10/96
T: 10/11/96

Original

OPERATIVE RECORD

PREOPERATIVE DIAGNOSIS: Leg length discrepancy.

POSTOPERATIVE DIAGNOSIS: As above.

OPERATION/PROCEDURE: Left distal femoral and left proximal tibial epiphysiodesis, percutaneous.

INDICATIONS FOR SURGERY: This is a 15-year-old boy with a 3.5 cm leg length discrepancy who has still projected growth in the next two years. We chose do to epiphysiodesis to try to equalize his leg lengths and further prevent any progressive long-leg discrepancy. The short leg was injured in a motor vehicle accident a number of years ago, and he has had previous reconstructive surgery on the right leg.

OPERATIVE PROCEDURE: The patient was given general anesthetic and placed in the supine position. The left leg was prepared and draped in the usual manner. Tourniquet was applied and inflated to 250 mmHg.

Using fluoroscopy the growth plate level was identified. We made a small lateral incision over the distal femoral epiphysis and proximal tibial epiphysis. A drill was then placed across the growth plates, foraged and then, using curets, this was further enlarged.

The patient tolerated the procedure well and was placed in a knee immobilizer and allowed to crutch walk and partial weight bear as tolerated.

OPERATIONS/PROCEDURES: The patient was given general anesthetic and put in the supine position. The tourniquet was applied and set at 250 mmHg. The procedure was carried out as described above. The wound was injected using Marcaine and epinephrine. The wound was closed with interrupted Prolene sutures. The patient will be

(CONTINUED)

SURGEON: RICHARD A. K. REYNOLDS

ASSISTANT SURGEON:

RESIDENT SURGEON: NICOLAS STRATTON, MD

DATE OF SURGERY: 12/30/96

Childrens Hospital Los Angeles

4650 Sunset Boulevard, Los Angeles, California 90027 - (213) 660-2450

PATIENT NAME: CONSERVA, MAX
MR#: 0962054

maintained in the knee immobilizer and bulky dressing for a week and then will return at that time for dressing change.

RICHARD A. K. REYNOLDS, MD

DATE _____ TIME _____

TL186 D: 12/31/96 T: 12/31/96 J: 2754
DICT: RICHARD A. K. REYNOLDS, MD

SURGEON: RICHARD A. K. REYNOLDS

ASSISTANT SURGEON:

RESIDENT SURGEON: NICOLAS STRATTON, MD

DATE OF SURGERY: 12/30/96

Childrens Hospital Los Angeles

4650 Sunset Boulevard, Los Angeles, California 90027 · (213) 660-2450

PATIENT NAME: CONSERVA, MAX
MR#: 0962054

OPERATIVE REPORT

ChildrensHospitalLosAngeles
Orthopaedic Surgery

Max is a 16-year-old boy who presented with a traumatic injury to his knee. He underwent an epiphysiodesis of his left distal femur and proximal tibia on 12/30/96. He has done well with this treatment. He has had no residual complications and he is doing very well, weight bearing as tolerated now.

He will be returning in three months time to get checked, make sure that everything has healed up okay and we will obtain an x-ray to see if we have indeed, achieved any growth arrest. We will be following this over the next six months to a year to make sure that he does not have recurrence of his angular deformity.

RAR:TL168 0096
D: 01/17/97
T: 01/18/97

CONSERVA, MAX
096-20-54

January 17, 1997

RICHARD A.K. REYNOLDS, MD

AMBULATORY ORTHOPAEDICS