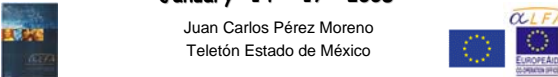**TRAMA** TRAining in Motion Analysis

**Second Course "Motion Analysis and clinics:
why to set up a Motion Analysis Lab ?"**
- Clinical cases presentation -

TRAMA Project

January 14 - 17th 2008

Juan Carlos Pérez Moreno
Teletón Estado de México

Clinical case presentation

• Previous treatment: Knee osteotomy surgery (02-2003). Genu valgus alignment and tibial bone distractor –Orthopix (06-2003).

• Rehabilitation program: Exercise program, cuadriceps strength training and orthotic devices.

• Range of motion exercises to preserving joint function

Clinical case presentation

• General data: Male, 15 years old, with diagnoses of Morquio syndrome (MPS IV/A).

• History: Perinatal history without problems, since year-old noticed the chest deformity and growth delay, evaluated by genetics becoming the diagnosis of Morquio syndrome A.

Clinical case presentation

Clinical case presentation

• Physical assessment: Normal hip ROM, knee extension: -20°/-5°; hamstring contracture 25°/20°; triceps contracture: 10°/10°; genu valgum 40°/10° and talus valgus 10°/20°.

Clinical case presentation

• Clinical evaluation: Normal brain functions, facial bone dysostosis, thickening of the alae nasi, lips and tongue, cardiac involvement, early bone involvement with dysostosis, thickening of the ribs, dorsolumbar kyphosis, progressive skeletal dysplasia and long bones are short with wide shafts.

Clinical case presentation

Quantitative 3D evaluation

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Clinical case presentation

Experimental description

• Equipment: BTS GaitEliteClinic 2.9.2

• Used protocol: Davis

• Experimental set-up applied: None

Clinical case presentation

Main conclusions:

1. The syndrome Morquio is a skeletal dysplasia that produce rhizomelic shortening of limbs.

2. The knee are prone to valgus deformities.

3. Early knee osteotomy and transposition of medial collateral ligament.

4. Results are uncertain