In the global process of rehabilitation of the amputee, the installation of an adapted orthopedic prosthesis constitutes the main objective of PRM departments. Satisfaction of the patient of the prosthesis is determining in its use and participate in the quality of life of the patient [1].

Objective To estimate the satisfaction of patients with orthopedic prosthesis made in the orthopedic center of the CNHU-HKM (OC/CNHU-HKM) of Cotonou, from 2006 till 2011.

Method Cross-sectional study with descriptive and analytical aim which consisted in seeing again between September, December and January, 2013 47 subjects according to the criteria of inclusion and exclusion well defined on 137 patients with prosthesis from OC/ CNHU-HKM, between 2006 and 2011, that is 6 years. Their level of satisfaction towards the prosthesis and their quality of life according to the London Handicap Scale were the studied dependent variables.

Results The subjects were 39,7 years old on average and for the greater part men (85.1%). Prostheses were exoskeletal (59.6%) and endoskeletal (40.4%). For the majority (57.5%), the price of the prosthesis was high, but 63.8% were satisfied with it. The quality of life was good for 14.9%. The level of global satisfaction of the patients was influenced by their level of satisfaction in gait, by the solidity of the prosthesis, by the facility to use the prosthesis in daily and professional activities. There was no correlation between the level of satisfaction of the patient towards the prosthesis and his quality of life ($P = 0.24$).

Discussion/conclusion The satisfaction of the patients of their prosthesis is major for the good use of the device. For that purpose, it is necessary to reconcile the functional, esthetic financial requirements of the patient in the realization of the prosthesis.

Keywords Satisfaction; Prosthesis; Orthopaedic center

Disclosure of interest The authors declare that they have no conflicts of interest concerning this article.

Reference


CO04-004-e

Monocentric retrospective study about 64 patients after orthopaedic treatment in Scheuermann's disease.

Quality of life and incapacity scale after brace ablation

J.-C. Bernard (Dr)a,*, J. Deceuninck a, A. Rougelot a, E. Berthonnaud a, I. Courtois (Dr)b, D. Fort (Dr)c

a Centre médico-chirurgical de réadaptation des Massues, Croix Rouge française, Lyon, France
b Institut Saint-Pierre, France
c Corresponding author.
E-mail address: bernardpr@cmrassues.com (J. Bernard)

Background Spinal growth disease is commonly known as “Scheuermann’s disease” (SD) from the Danish physician who first described this illness. The prevalence is 1 to 8% and resulting in spinal pains; spinal deformations, vertebral and discal alteration. The conservative treatment occupies an important place in the care of patients to fight against spinal deformations and treating mechanical pains.

Objectives The main objective is to evaluate the results of orthopedic treatment on clinical and laboratory functional consequences of SD on the dorsal spine, thoracolumbar and lumbar vertebra. The secondary objective is to know the impact of this disease on disability and quality of life away from the removal of the corset.

Population and methods Sixty-four teenagers (37 boys [58%] and 27 girls [42%]), the average age at treatment being 14.4 years, were evaluated clinically (pain, clinical examination data) and radiologically (pelvic and spinal parameters, evolution of the deformation of the apical vertebra) at the beginning of treatment, at the end and with the biggest distance. A long time after the removal of the corset, a disability survey (Quebec disability scale) and quality of life (SF36) is mailed to patients.

Results Thoracic location of the SD (69%), thoraco-lumbar vertebra (20%), lumbar vertebra (3%), complex (8%). The pain on the spine is significantly improved on the EVA decreasing from 30% before treatment to 2% at the ablation of the brace then to 4% with distance. Radiological correction of the thoracic and thoraco-lumbar kyphosis.

Discussion/conclusion The orthopaedic treatment is effective on the teenagers spinal pain treated for Scheuermann's disease. The efficiency of the orthopaedic treatment must be discussed according to the location of the SD: thoracic, thoraco-lumbar or lumbar. It is necessary to define more specifically the expected objectives of the conservative treatment of the SD during growth concerning the pain, the correction of the sagittal curvatures and/or the repair of the vertebral damage and if possible disc damage too.

Keywords Scheuermann disease; Teenagers; Spinal growth disease; Pain; Orthopaedic treatment; Pelvic and spine parameters

Disclosure of interest The authors declare that they have no conflicts of interest concerning this article.

Further reading


CO04-005-e

Severe congenital scoliosis: What possibilities for seating installation and mobility?

M. Porte (Dr)a,*, G. Toutain b, B. Huguet b, K. Patte (Dr)c

a CHU Caremeau, Nîmes cedex 9, France
b Institut Saint-Pierre, France
c Corresponding author.
E-mail address: toutain.g@institut-t-erre.fr (G. Toutain)

Introduction We call congenital scoliosis a spinal curve which may be present before age of 3 [1]. Some resolve spontaneously while others can severely progress, but the literature do not report data about their prevalence. Its impact is multiple: the curve can induce an oblique pelvis, an alteration of respiratory function, some nutritional troubles or pain. All those can impair, daily the possibilities of prone or sitting positions, or capacities of mobility. And those problems, as we know, have not being studied in publications up to now.

Objective From 5 situations, we will approach the complaints of children and teenagers with severe congenital scoliosis, about their sitting installation with discomfort, their mobility or participation limitations. In each case, we will also report some possible difficulties for the adaptation of compensation devices.

Discussion/conclusion Young patients with severe scoliosis can suffer daily of bad installation, painful and impossible to sustain during hours. They can need devices to support their mobility (scooter, wheelchair). Those problems are not enough evaluated and taken into account while they can impact patient’s quality of life. Attribution of devices for compensation is not a simple course, from the evaluation to the technical realization (custom-made most generally) with sometimes even legal difficulties.

Keywords Congenital scoliosis; Children; Wheelchair; Mobility

Disclosure of interest The authors declare that they have no conflicts of interest concerning this article.
This study has focused on a patient valgum.

Materials and methods

In the case of a patient varus/valgus, how to reduce the mechanical changes have to be done in operating room under general anesthesia. Heavy patients have to face break of abutment. Abutment’s stress on the abutment in order to reduce the frequency of...

Introduction

Progress in microsurgical techniques for the last 40 years revealed a new population of patients: those with replanted hand.

Observation

We present the case of a 63-year-old patient with a complete traumatic radio carpal amputation. His amputated hand was successfully replanted in emergency on December 8, 2014; we will detail the issues in post-operative rehabilitation treatment and the need to solve multiple problems. We will discuss about vascular question, risk of infection, skin appearance, bone, tendon, neurological, and psychological component, some objectives having to take in consideration different factors involved in the recovery.

Discussion

The replantation of a hand in a 63-year-old patient requires specialized care, long and difficult labor with an uncertain future for reinnervation. On the other side, the myoelectric prosthesis allows to the patient a rapid return to social life.

Keywords Osseointegration; Reduction of mechanical strain; Postoperative rehabilitation

Disclosure of interest The authors declare that they have no conflicts of interest concerning this article.

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Posters

P013-e

Osseointegration of the lower limb: Reduction of mechanical strain on the abutment

E. Mollaret (Ingénieur);*, M. Bertrand Marchand (Dr)

Clinique St Roch/Dr Marion Bertrand Marchand, Montpellier, France

*Corresponding author.

E-mail address: eric_mollaret@yahoo.fr (E. Mollaret)

Introduction

The osseointegration improves the quality of life for amputees and brings indolence [1]. Unlike a socket, the abutment concentrates stresses. The tall and heavy patients have to face break of abutment. Abutment’s changes have to be done in operating room under general anesthesia.

In the case of a patient varus/valgus, how to reduce the mechanical stresses on the abutment in order to reduce the frequency of changing this critical part?

Materials and methods

This study has focused on a patient valgum osseointegrated since January 2012 and in very good health.

We have evaluated in static position (bipodal support, without speed or acceleration, frontal plane) mechanical stress at the junction abutment–implant in three different cases:

– prosthesis aligned with the abutment;
– prosthesis aligned with the abutment with varus due to slight plastic deformation of the abutment;
– prosthesis vertically and translated in the frontal plane with a load line passing through the bottom of the abutment and the femoral head.

We have used a telemetry, goniometer, ruler, CAD software, and scientific calculator.

The third case was possible by a long length of the residual femur’s bone.

Results

For a patient whose weight is 80 kg and the size 1.88 m, the values [1,2] of the torque at the junction abutment–implant are:

Case 1: 20.8 Nm
Case 2: 31.68 Nm
Case 3: 2.24 Nm

We find between the case 1 and case 3:

– a sharp reduction of flows all around the abutment;
– a better ambulation;
– a better prosthesis–abutment contact;
– a better finishing of the mechanical stress action path through the abutment;
– reduces strain and increases the life of the abutment for all patients;
– decreases patient’s anxiety.

Keywords Osseointegration; Reduction of mechanical strain; Titanium OPRA

Disclosure of interest The authors declare that they have no conflicts of interest concerning this article.

References


P014-e

Assessment of the quality of life of lower-limb amputees with orthosis

M. Rekik (Dr);*, A. Haj Salah (Dr);*, M. Sghir (Dr);*, I. Ksibi (Dr);*, W. Said (Dr);*, W. Kessomtini (Prof);*;

CHU Sfax, Tunisia

Hôpital Militaire Principal d’Instruction de Tunis, Tunisia

*Corresponding author.

E-mail address: kwassia@yahoo.fr (W. Kessomtini)

Objective

The aim of this work is to analyze the becoming and the quality of life (QOL) of implanted patients following a major lower extremity amputation.

Material and methods

We conducted a cross-sectional study including 17 patients fitted after major lower extremity amputation. We assessed their QOL using the “Nottingham health profile” NHP (with 6 items: mobility, emotional reactions, energy, social isolation, sleep, pain) and the analogue scale VAS of QOL graduated from 0 to 100 mm. In a second time, we studied the correlation between QOL and age, sex, comorbidity, level of amputation, and evolution.

Results

We have evaluated in static position (bipodal support, without speed or acceleration, frontal plane) mechanical stress at the junction abutment–implant in three different cases:

– prosthesis aligned with the abutment;
– prosthesis aligned with the abutment with varus due to slight plastic deformation of the abutment;
– prosthesis vertically and translated in the frontal plane with a load line passing through the bottom of the abutment and the femoral head.

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Case 2: 31.68 Nm
Case 3: 2.24 Nm.

We find between the case 1 and case 3:

– a sharp reduction of flows all around the abutment;
– a better ambulation;
– a better prosthesis–abutment contact;
– a better finishing of the mechanical stress action path through the abutment;
– reduces strain and increases the life of the abutment for all patients;
– decreases patient’s anxiety.

Keywords Osseointegration; Reduction of mechanical strain; Titanium OPRA

Disclosure of interest The authors declare that they have no conflicts of interest concerning this article.

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