



Original Article

Total hip arthroplasty complications in patients with or without controlled diabetes mellitus during hospitalization[☆]

Fernanda Rezende Campos Falcão^{a,*}, Bruno Anderson Gomes Dias^a,
Liz Araujo Wolfvitch^a, David Sadigursky^{a,b}

^a Faculdade de Tecnologia e Ciências (FTC), Salvador, BA, Brazil

^b Clínica Ortopédica Traumatológica (COT), Salvador, BA, Brazil

ARTICLE INFO

Article history:

Received 15 January 2016

Accepted 28 February 2016

Available online xxx

Keywords:

Total hip arthroplasty

Postoperative complications

Diabetes mellitus

ABSTRACT

Introduction: Total hip arthroplasty (THA) is a procedure that aims to restore the function of the hip joint. Diabetes mellitus (DM) is one of the most prevalent comorbidities among patients undergoing THA. DM involves various immunological and metabolic aspects, which lead to limitations and surgical complications.

Objective: To evaluate the association between THA complications and controlled DM during hospitalization period.

Methods: Cross-sectional research through the analysis of retrospective records of a private hospital in Salvador, Bahia. The chi-squared and Fisher's exact tests were used in SAS statistical program.

Results: Most patients were elderly females. The most prevalent comorbidities in the sample were hypertension and diabetes. The most frequent underlying pathology in the sample was coxarthrosis; among patients with DM, it was femoral neck fracture. The most common complications were changes in the hemolymphopoietic system, among which anemia was the most frequent complication. Cardiovascular, nervous, and blood glucose complications were positively associated with controlled DM. In turn, hemolymphopoietic, genitourinary, digestive, electrolyte, and infectious complications were not associated with DM. Having DM was a protective factor for thermal complications. There was no statistically significant difference between patients that had or did not have DM in each complication group studied.

Conclusion: Patients with controlled DM did not present more complications than those without DM during hospitalization in the post THA.

© 2016 Published by Elsevier Editora Ltda. on behalf of Sociedade Brasileira de Ortopedia e Traumatologia. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

[☆] Study conducted at Clínica Ortopédica Traumatológica (COT), Salvador, BA, Brazil.

* Corresponding author.

E-mail: fernandafalcao@gmail.com (F.R. Falcão).

<http://dx.doi.org/10.1016/j.rboe.2016.08.016>

2255-4971/© 2016 Published by Elsevier Editora Ltda. on behalf of Sociedade Brasileira de Ortopedia e Traumatologia. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Complicações pós-artroplastia total de quadril em portadores e não portadores de diabetes mellitus controlado durante a internação

RESUMO

Palavras-chave:

Artroplastia total de quadril
Complicações pós-operatórias
Diabetes mellitus

Objetivo: Avaliar a associação entre as complicações pós-ATQ e DM controlado no período da internação.

Métodos: Pesquisa de corte transversal por meio da análise de prontuários retrospectivos de um hospital particular em Salvador (BA). Usaram-se os testes qui-quadrado e exato de Fisher no programa estatístico SAS.

Resultados: A maioria dos pacientes era do sexo feminino e idosa. As comorbidades mais prevalentes da amostra foram hipertensão arterial sistêmica e DM. A patologia de base mais frequente na amostra foi coxartrose; já entre os pacientes com DM, foi fratura do colo do fêmur. As complicações mais comuns foram alterações do sistema hemolinfopoiético. Dentre essas anemia foi a complicação mais frequente. As complicações do aparelho cardiovascular, do sistema nervoso e as glicêmicas tiveram associação positiva com o DM controlado. Já as complicações hemolinfopoiéticas, geniturinárias, digestórias, eletrolíticas e infecciosas não apresentaram associação com DM. Ser portador de DM foi um fator protetor de complicações térmicas. Não houve diferença estatisticamente significativa entre os pacientes portadores e não portadores de DM em nenhum dos grupos de complicações estudados.

Conclusão: Os pacientes portadores de DM controlado não apresentaram mais complicações dos que os pacientes não portadores de DM durante a internação no pós-operatório da ATQ.

© 2016 Publicado por Elsevier Editora Ltda. em nome de Sociedade Brasileira de Ortopedia e Traumatologia. Este é um artigo Open Access sob uma licença CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Total hip arthroplasty (THA), a procedure of replacement of the hip joint with a prosthesis, is a relatively safe intervention. The increased life expectancy has elevated the number of procedures.¹⁻³ In the United States, more than 168,000 THAs and 30,000 implant substitutions are performed per year. In Brazil, there are few epidemiological data.^{4,5}

Coxarthrosis is the most common indication for THA. Other common indications are rheumatoid arthritis, fractures, and necrosis of the femoral head.⁶⁻⁸ THA aims to relieve pain and improve functional capacity.^{1,9} Complications involve surgery infections, thromboembolism, and anemia, among others. Infections are the most feared, prevalent, and studied complications.⁹ Diabetes mellitus (DM), hypertension (SAH), and heart diseases are the most prevalent comorbidities among THA patients.^{10,11}

DM prevalence in Brazil is 7.6%,¹² and is initially characterized by hyperglycemia. It is the result of anomalies in the insulin secretion and/or action. It involves immune and metabolic aspects, which facilitate infections and reduce the repair and healing ability. Chronic complications confer a high degree of morbidity and mortality. Naturally, alterations vary with the intensity and level of control of the disease. Therefore, it is important to assess the health condition of these patients and the need for surgical intervention, and to analyze the cost-benefit of surgeries such as THA.^{13,14}

There is a considerable lack of information about THA complications in patients with DM.¹³ Thus, the analysis of

the profile of patients and their post-THA complications can contribute to the development of protocols, point to associations, and assist the orthopedist in the indication of THA for diabetic patients. Therefore, this study aimed to evaluate the association between post-THA complications with and without controlled DM during the period of hospitalization.

Materials and methods

This was a cross-sectional study through retrospective analysis of medical records of a private hospital that specializes in the treatment of orthopedic patients, primarily from middle- and upper-class, which belongs to the private health-care network. In this hospital, two surgical teams perform THA.

The study population comprised hospital patients undergoing THA. The calculated sample size, with a confidence interval of 95% and a sample error of 5%, was 84 patients. Permuted randomization was done in blocks of patients, so that sample was composed of the same number of patients operated by each surgical team, 42 each. The study included patients who underwent THA from January 2013 to December 2014 and were drawn. Patients with incomplete or lost records in the hospital database were excluded.

The criteria for THA indication was degenerative, inflammatory, and/or traumatic hip pathologies. Diagnosis was always made by an orthopedic physician through radiographic examination (significantly reduced joint space associated with

Download English Version:

<https://daneshyari.com/en/article/8600788>

Download Persian Version:

<https://daneshyari.com/article/8600788>

[Daneshyari.com](https://daneshyari.com)