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CLINICAL CHARACTERISTICS OF THE SCAR AFTER KNEE AND HIP
ARTHROPLASTY: a cross-sectional study

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Trabalho de Conclusão de Curso de
graduação apresentado ao
Departamento de Fisioterapia da
Universidade Federal de Ciências da
Saúde de Porto Alegre, como
requisito parcial para a obtenção do
grau de Bacharel em Fisioterapia.

Orientador: Prof. Dr. Marcelo Faria Silva

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Resumo

Introdução: As artroplastias de joelho e quadril são frequentes e exigem reabilitação específica. A avaliação e o tratamento adequados da cicatriz são essenciais, pois ela pode causar aderência, rigidez tecidual e dor. Este estudo teve como objetivo avaliar cicatrizes de pacientes submetidos à artroplastia de joelho ou quadril e investigar a relação entre aderências, rigidez tecidual e dor.

Métodos: Este estudo observacional transversal foi realizado em Porto Alegre (Brasil). Os critérios de inclusão foram artroplastia primária e unilateral realizada há pelo menos um ano e idade acima de 18 anos. As avaliações incluíram um questionário sociodemográfico, o *Patient and Observer Scar Assessment Scale*, o aderometro, a indentometria e a algometria. Foram adotados um poder estatístico de 80% e um nível de significância de 5%. Para dados paramétricos, foi aplicado o teste de correlação de Pearson, e para dados não paramétricos foi aplicado o teste de Spearman. **Resultados:** Vinte e um participantes foram incluídos, seis com artroplastia de joelho e quinze com artroplastia de quadril. As médias foram: POSAS Observer 17,52 ($\pm 3,86$), POSAS Patient 15,90 ($\pm 9,49$), grau de aderência 0,51 ($\pm 0,20$), rigidez tecidual 2,60 N/mm ($\pm 1,42$) e limiar de dor 21,54 N ($\pm 13,36$). Não foi encontrada correlação entre aderência, rigidez e limiar de dor. Apenas rigidez tecidual e POSAS Observer apresentaram correlação significativa ($r = -0,590$; $p = 0,004$). **Conclusão:** Este é o primeiro estudo a investigar a relação entre aderência, rigidez tecidual e limiar de dor em cicatrizes após artroplastia de quadril ou joelho. Os resultados sugerem ausência de associação entre essas variáveis. Novos estudos são necessários para esclarecer o impacto das cicatrizes após cirurgia ortopédica e para avaliar a confiabilidade de diferentes instrumentos de avaliação.

Palavras-chave: Cicatriz. Artroplastia. Quadril. Joelho. Aderências Teciduais. Maleabilidade. Dor

Abstract

Introduction: Knee and hip arthroplasties are frequent and require specific rehabilitation. Proper scar assessment and treatment are essential, as scars may cause adherence, tissue stiffness, and pain. This study aimed to assess scars of patients who underwent knee or hip arthroplasty and to investigate the relationship among adherence, tissue stiffness, and pain. *Methods:* This observational cross-sectional study was conducted in Porto Alegre (Brazil). Inclusion criteria were primary and unilateral arthroplasty performed at least one year earlier and age over 18 years. Assessments included a sociodemographic questionnaire, the Patient and Observer Scar Assessment Scale, adheremeter, indentometry, and algometry. A statistical power of 80% and a significance level of 5% were adopted. Pearson's correlation test was applied to parametric data, and for the nonparametric data Spearman's correlation test was applied. *Results:* Twenty-one participants were included, six with knee and fifteen with hip arthroplasty. Mean scores were: POSAS Observer 17.52 (± 3.86), POSAS Patient 15.90 (± 9.49), adherence degree 0.51 (± 0.20), tissue stiffness 2.60 N/mm (± 1.42), and pain threshold 21.54 N (± 13.36). No correlation was found among adherence, stiffness, and pain threshold. Only tissue stiffness and POSAS Observer showed a significant correlation ($r = -0.590$, $p = 0.004$). *Conclusion:* This is the first study to investigate the relationship among adherence, tissue stiffness, and pain threshold in scars after hip or knee arthroplasty. Results suggest no association among these variables. Further studies are needed to clarify the impact of scars after orthopedic surgery and to evaluate the reliability of different assessment tools.

Keywords: Scar. Arthroplasty. Hip. Knee. Tissue Adhesions. Pliability. Pain

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