107 - PHYSIOTHERAPY INTERVENTIONS ON DEFORMITIES CAUSED BY LEPROSY

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INTRODUCTION

Leprosy is endemic in Brazil and constitutes a serious public health problem by causing permanent physical disability and have high endemic levels with distribution varied in different regions, factors that create difficulties for its epidemiological control (BRAZIL, 2005).

Clinically, neuritis can be silent with no signs or symptoms, or may be obvious, acute, accompanied by intense pain, hypersensitivity, edema, loss of sensation and paralysis of the muscles (FONSECA and Pereira, 2002; Prevedello and MIRA, 2007).

The pathogenesis of leprosy neuropathy comprises several factors. Initially, there is one factor intrinsic nature (presence of bacilli and inflammatory reaction). The he may add an extrinsic factor - nerve compression by swollen neighboring anatomical structures (bones, ligaments, fibrous bands and muscle arcades). The term most commonly used to refer to neural impairment in leprosy neuritis is. This term means inflammation of neural tissues. However, not all neural impairment is a result of inflammation or infection. Therefore, we prefer to use the term neuropathy. This neuropathic process may be acute or chronic, with or without pain and with or without trophic changes (vasomotor), sensory and motor deficits. (BRAZIL, 2008)

Nerve injury motor and sensitive changes that lead to the installation of various degrees of physical disability, and can interfere with social and economic life of the patients, resulting in stigma and discrimination against them. Among the major disabilities are socially relevant and skin ulcers. The region is considered as the planting site commonly affected by ulcers due to biomechanical changes and decreased sensitivity occurred in the patient. The biomechanical alteration occurs from muscular atrophies, muscle weakness and deformities that directly contribute to the breakdown of bone

foot. This breakdown causes the patient to perform a new motion dysfunctional and cause pressure points on the foot is not appropriate regions. Moreover, the leper has abolition or reduction of sensitivity, which reflects the decrease in physiological protection needed to prevent many skin lesions (GOMES, FRIAR and FOSS, 2007).

Physical therapy is a crucial skill for prevention and rehabilitation of disabilities, but little is spoken of conduct and guidelines for specific treatment of neuritis or disabilities acquired by leprosy (PIMENTEL, 2004 and FOSS, 1999). Thus physiotherapy in leprosy aims monitoring of neural function through neurological evaluation, classification of the degree of disability, applying preventive techniques, making and fitting of orthotics, splints and insoles, to promote the well being of the patient and improves quality of life thereof (Bambirra, and Tokars 2004, 2003).

METHODOLOGY

For this literature review, were adopted as criteria for inclusion in databases: scientific articles, theses and dissertations, bound in full, open access and electronic; addressing the leprosy issue, the health-disease and social determinants. The set language is Portuguese. The studied period includes January 2002 to May 2012. The descriptors selected for investigation are: leprosy disease process and social determinants. For the survey data will be used the following databases: LILACS; BDENF; ADOLEC, Magazine Hansenologia Internationalis, Bank of Theses and Dissertations CAPES. Held on reading the abstracts of the articles. Publications that did not meet the core issues and / or goals of the study were excluded.

RESULTS

Physical disability is the element that separates the leprosy of other diseases by generating great impact for the patient and for the community, constinuindo the big reason why it is considered a special case, for most people of lay people, leprosy means deformindade (SMITH; ANTIN; Patole 1980; SMITH, 1992).

The leprosy is the most important cause of deformities and disability when compared to other diseases (CROFT; NICHOLLS; STEYRBEG et al., 2000).

The most effective way of reducing the risk of failure is the early detection and treatment adequade the largest possible number of cases. The prevention of disability es'ta related to all measures to prevent the appearance of deficiency (primary prevention), to limit or terminate the disability caused by the deficiency (secondary prevention) and prevent the transition from disability to disability (tertiary prevention) (LECHAT, 1998).

Deformities in leprosy, can be of two types: primary and secondary. The primary deformities are caused by direramente atecidual reaction to infection by M. leprae, direct reaction of the disease and include leonine face, gynecomastia, nasal collapse, claw hand logoftalmo, among others (paralysis and sensory loss). The secondary deformities occur as a result of damage to the parties anesthetic body, subsequently developed primary deformities such as plantar ulcers, amputation of fingers and corneal ulcers (MATHEW and Itoh, 1994).

According to Fonseca and Pereira (2002), the bacilli of Hansen affect mainly the peripheral nerves since their termination from the dermis to superficial nerves. The neuropathy is clinically hanseniana mixed, compromising both sensory nerve fibers, such as motor and autonomic, resulting in alterations and imbalances in strength and flexibility.

Leprosy is the leading cause of permanent disability among infectious diseases due to neuritis, early treatment is the only way to prevent neuropathy. Monitoring the sensitivity and muscle strength is needed to prevent from prophylactic or reparative process, disabilities. The activities of prevention and treatment of physical disabilities should integrate the treatment of leprosy. All health professionals should be alert to diagnose and promptly treat any evidence of neural injury in order to prevent future disability (WHO, 2005; NARDI, PASCHOAL and Zanetta, 2005 and Correa, IVO and Honer, 2007).

According to Kisner and Colby (1998) "the imbalance of strength and flexibility in muscles can occur due to a variety of causes, some of which are obsolete, faulty joint mechanics, surgery, immobilization and nerve damage." If rated this imbalance is due to the natural tropism of the bacillus by peripheral nerves, and furthermore, was aggravated by disuse, due to the time that the patient remained without intervention during a vacation.

According to White, Pritchard and Turner-Stokes (2008), rehabilitation for people after peripheral neuropathy will be focused on symptomatic treatment and therapy programs or strengthening exercises for strength. Strengthening programs typically involve progressive resistance training using repetitions of specific muscle contractions. These can be isometric, isokinetic or istônicos. Resistance programs typically involve the gradual increase of the duration and intensity of aerobic activity,

such as cycling, running, or walking. Tokars et al (2003) in their study with leprosy patients, physiotherapy intervention using mobilizations held free and active or passive techniques tendon gliding and stretching myoneural exercises to improve or maintain the tropism and muscular endurance and proprioception reeducate members lower and higher, noting that most of the patients reported significant improvement and were pleased with the results.

Besides the work of muscle strength, physical therapy in a patient with leprosy aims to prevent or reduce soft tissue retraction, maintain or restore joint mobility, prevent deformity, keep the tone (BRAZIL, 2001b). Therefore, the adoption of prevention activities and treatment of disabilities will be based on information obtained through the neurological evaluation, the diagnosis of leprosy. This information refers to neural or physical disability identified which deserve special attention in view of its consequences on the economic and social life of individuals with leprosy, or even their possible sequelae in those already cured (BRAZIL, 2005).

The use of orthotics to help treat and prevent other sequelae. The stents are devices which are designed to maintain the members fixed or segments thereof, in order to avoid injuries on nerves in cases of neurites, reduce pain, assist in healing wounds and correct soft tissue retraction, facilitating the realization of functional movements. In patients with leprosy, are used in the treatment of reactions, preventing or correcting deformities (SMITH, OAK, 2006).

An important complication resulting from neuropathy in patients with leprosy are skin ulcers. These lesions should be properly addressed and prevented, since they are the gateway to infections that can lead agravare patients to serious complications and even amputation. (GOMES, FRIAR and FOSS, 2007)

Thus, according Bambirra (2004) eTokars et al (2003), Physical Therapy in hanseníasetem objective monitoring of neural function through neurological evaluation, aclassificação the degree of disability, applying preventive techniques, fabrication and fitting of orthotics, splints and insoles, promoting patient wellness and improved quality of life even. The assessment should be performed when the diagnosis, during treatment, if any complaints after discharge and, more frequently, in the presence of neurites and reactions (BRAZIL, 2001b).

CONCLUSIONS

Whereas Physiotherapy is a science concerned with the prevention, treatment and rehabilitation of functional disorders kinetic intercurrent in organs and body systems, which are caused by trauma, genetic and acquired diseases, it is known that physical therapy practices can be developed at all levels of health care. Thus, in addition to rehabilitation practices should be guided to the patients who regularly self-care, which are actions and activities that the patient done to avoid creating problems or detect them early to avoid complications. The guidelines must be constantly strengthened and the patient periodically reassessed. Prevention activities should be performed emphasizing those that are likely to be performed at home. The patient should be made aware that the change in sensitivity may predispose to trauma, whether mechanical, chemical or thermal (COFFITO, 2007)

There is no case report in the literature regarding the specific physical therapy for leprosy, so should the physiotherapist do a treatment protocol to improve the problems of sequelae caused by the disease, if they already exist, or even prioritize the prevention of the sequelae and deformities most prevalent disease.

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PHYSIOTHERAPY INTERVENTIONS ON DEFORMITIES CAUSED BY LEPROSY

ABSTRACT

Introduction: Leprosy, formerly known as Hansen's disease or disease, is a chronic infectious disease caused by Mycobacterium leprae, and manifests itself through skin lesions presenting with decreased or absent sensation. In addition to

skin manifestations, leprosy has important repercussions on peripheral nerves. Clinically, neuritis can be silent and no signs or symptoms, or may be evident, sharp, accompanied by severe pain, hypersensitivity, swelling, and loss of sensitivity paralysis of muscles. Objective: Aim of physiotherapy intervention in neurites and disabilities generated by Hanseniase. Methodology:: bibliographic study through search sites Bireme scientific, and Pubmed Scielo with descriptors leprosy disease process and public health. Selected articles that focused on the disease process and the social determinants of patologia. Results: Being the leading cause of leprosy permanent physical disability among infectious diseases due to neuritis, early treatment is the only way to prevent neuropathy. Monitoring the sensitivity and muscle strength is needed to prevent from prophylactic or reparative process, disabilities. The activities of prevention and treatment of physical disabilities should integrate the treatment of leprosy. All health professionals should be alert to diagnose and promptly treat any evidence of neural injury in order to prevent disabilities futuras. Conclusion: There is no case report in the literature regarding the specific physical therapy for leprosy, so the therapist must make a protocol treatment to improve the problems of the sequelae caused by the disease, if they already exist, or even prioritize the prevention of the sequelae deformities and most prevalent disease.

KEYWORDS: Physiotherapy, Hansen Disease, Physical Incapacity

L'INTERVENTION EN PHYSIOTHÉRAPIE RESULTANT DES DÉFORMATIONS DE LA LÈPRE

RESUME

Introduction: La lèpre, autrefois connue comme la maladie de Hansen ou d'une maladie, est une maladie infectieuse chronique causée par Mycobacterium leprae, et se manifeste par des lésions cutanées se présentant avec une perte de sensation ou absent. En plus des manifestations cutanées, la lèpre a des répercussions importantes sur les nerfs périphériques. Cliniquement, la névrite peut être silencieuse et aucun signe ou symptôme, ou peut-être évidente, brutale, accompagnée de douleurs sévères, hypersensibilité, le gonflement et la perte de sensibilité de la paralysie des muscles. Objectif: Le but de l'intervention en physiothérapie dans les neurites et des incapacités générées par Hanseniase. Méthodologie: étude bibliographique à travers les sites de recherche scientifique BIREME, et Pubmed Scielo avec le processus de la maladie de la lèpre descripteurs et la santé publique. Une sélection d'articles qui mettaient l'accent sur le processus de la maladie et les déterminants sociaux de la patologia. Résultats: Être la principale cause de la lèpre handicap physique permanent entre les maladies infectieuses dues à une névrite, un traitement précoce est le seul moyen de prévenir la neuropathie. Surveillance de la sensibilité et de la force musculaire est nécessaire pour empêcher de processus prophylactique ou réparatrice, les handicaps. Les activités de prévention et de traitement des incapacités physiques doit intégrer le traitement de la lèpre. Tous les professionnels de la santé doivent être attentifs à diagnostiquer et à traiter rapidement des signes de lésion neuronale dans le but de prévenir les handicaps futuras. Conclusion: Il n'ya pas de rapport de cas dans la littérature concernant la thérapie physique spécifique de la lèpre, de sorte que le thérapeute doit faire un protocole traitement pour améliorer les problèmes de l'séquelles causées par la maladie, si elles existent déjà, ou même la priorité à la prévention des malformations séquelles et des maladies les plus répandues.

MOTS-CLÉS: Physiothérapie, Lèpre, Handicap physique

INTERVENCIÓN DE FISIOTERAPIA QUE RESULTA EN DEFORMIDADES DE LA LEPRA

RESUMEN

Introducción: La lepra, anteriormente conocida como enfermedad de Hansen o enfermedad, es una enfermedad infecciosa crónica causada por Mycobacterium leprae, y se manifiesta a través de lesiones en la piel que presentan disminución de la sensibilidad o ausente. Además de las manifestaciones de la piel, la lepra tiene importantes repercusiones sobre los nervios periféricos. Clínicamente, neuritis pueden ser silenciosas y no hay signos o síntomas, o puede ser evidente, agudo, acompañada por dolor severo, hipersensibilidad, hinchazón, y pérdida de sensibilidad de la parálisis de los músculos. Objetivo: El objetivo de la fisioterapia en las neuritas y las discapacidades generadas por Hanseniase. Metodología: Estudio bibliográfico a través de los sitios de búsqueda Bireme científica y Scielo Pubmed con la enfermedad de la lepra proceso de descriptores y la salud pública. Artículos seleccionados que se centraron en el proceso de la enfermedad y los determinantes sociales de la patologia. Resultados: Ser la principal causa de discapacidad física permanente lepra entre las enfermedades infecciosas debidas a la neuritis, el tratamiento temprano es la única manera de prevenir la neuropatía. Seguimiento de la sensibilidad y la fuerza muscular es necesaria para evitar de proceso profiláctico o reparadora, discapacidades. Las actividades de prevención y tratamiento de las discapacidades físicas deben integrar el tratamiento de la lepra. Todos los profesionales de la salud deben estar alertas para diagnosticar y tratar rápidamente cualquier evidencia de daño neuronal con el fin de prevenir las discapacidades futuras. Conclusión: No hay ningún caso reportado en la literatura acerca de la terapia física específica para la lepra, por lo que el terapeuta debe hacer un protocolo tratamiento para mejorar los problemas de las secuelas causadas por la enfermedad, si ya existe, o incluso priorizar la prevención de las secuelas deformidades y enfermedades más prevalentes.

PALABRAS CLAVE: Fisioterapia, Lepra, Discapacidad Física

INTERVENÇÃO DA FISIOTERAPIA NAS DEFORMIDADES RESULTANTES DA HANSENIASE

RESUMO

Introdução: A hanseníase, antigamente conhecida como doença ou mal de Hansen, é uma doença infecciosa crônica causada pelo mycobacterium leprae, e manifesta-se através de lesões de pele que se apresentam com diminuição ou ausência de sensibilidade. Além de manifestações cutâneas, a hanseníase possui repercussão importante no nervos periféricos. Clinicamente, a neurite pode ser silenciosa, sem sinais ou sintomas, ou pode ser evidente, aguda, acompanhada de dor intensa, hipersensibilidade, edema, perda de sensibilidade e paralisia dos músculos. Objetivo: Apontar a intervenção da fisioterapia nas neurites e incapacidades geradas pela Hanseniase. Metodologia: Estudo bibliográfico através de busca de sites científicos Bireme, Scielo e Pubmed com os descritores hanseníase, processo saúde-doença e saúde pública. Selecionado artigos que enfocaram o processo saúde-doença e os determinantes sociais da patologia. Resultados: Sendo a hanseníase a principal causa de incapacidade física permanente dentre as doenças infecto-contagiosas devido às neurites, o tratamento precoce é a única forma de prevenção da neuropatia. A monitoração da sensibilidade e da força muscular é necessária para evitar, a partir de medidas profiláticas ou reparadoras do processo, as incapacidades. As atividades de prevenção e tratamento de incapacidades físicas devem integrar o tratamento da hanseníase. Todo profissional de saúde deve estar atento para diagnosticar e tratar precocemente qualquer indício de lesão neural a fim de evitar incapacidades futuras. Conclusão: Não há relato de caso na literatura consultada ao respeito de tratamento fisioterapêutico específico para hanseníase, devendo assim o fisioterapeuta fazer um protocolo de tratamento para melhorar os problemas das seqüelas deixadas pela doença, se estas já existirem, ou ainda, priorizar a prevenção das seqüelas e deformidades mais prevalentes da doença.

PALAVRAS CHAVE: Fisioterapia, Hanseníase, Incapacidade Física