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13 – Transcendence of Diabetic Foot in Primary Care

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Diabetes, which, is estimated that globally over 422 million of people carry it, is one of the most prevalent chronic diseases; in Latin America there are 64 million people with this disease and in Mexico about 7 million people , and only 25% are in metabolic control. [1,2] Diabetic foot is a complication caused by changes in blood vessels and/or nerves, joint damage, dermatological or soft tissue; it can include different types of injuries, infections, ulcers and deep tissue destruction. The diabetic foot is considered the leading cause of non-traumatic amputation of lower limbs in the world, besides being able to be considered as a factor of poor prognosis, because up to 70% will die within a period of 5 years and about 50% of those who develop an ulcer will die in the next 5 years.[3]

What impact has primary prevention in diabetic foot?

In all patients primary preventive measures should be applied based on metabolic control, education in self-care of the feet, use of protective footwear, care for non-ulcerative pathologies (plantar hyperkeratosis, bone deformities), podiatric assessment and sent to second level attention if necessary. In addition to preventive measures, we as family physicians should instruct patients about their disease and a healthy lifestyle.[4] The inclusion criteria taken into account were: adult patients diagnosed with type 2 diabetes mellitus for more than 5 years of evolution and with no history of foot ulcers or amputation of a limb. In each patient were assessed socio-demographic variables, medical history, medications used to control diabetes mellitus, smoking and type of footwear worn by the patient. To assess the variables associated with development of diabetic foot a questionnaire was applied to each patient looking for symptoms of diabetic neuropathy consisting of 4 parameters (unsteady walking, neuropathic pain, paraesthesia and numbness); plus a physical examination of the feet looking for malformations, corns, onychomycosis and presence of pedal pulses; finally sensitivity was evaluated with Semmes-Weinstein monofilament; for statistical analysis we used odds ratio with confidence intervals of 95% and statistical significance was considered for $p \leq 0,05$.[5]

Physical examination as the cornerstone of diagnosis

A proper evaluation of these patients includes performing a good interrogation inquiring about the presence of dysaesthesia, intermittent claudication, ulcers and amputation; accompanied by a detailed examination of the foot and the detection of peripheral vascular disease, these factors not only help us to establish an early diagnosis but also to give a clinical classification of high and low risk so we can set up

a frequency to perform evaluations of the feet, either every 3 to 6 months or a year, respectively.

The most commonly used tests to evaluate these patients are the 10 gr monofilament and the scale of symptoms for diabetic neuropathy. The first is a simple, practical and accurate test with a sensitivity of 78% and a specificity of 96% for identifying diabetic neuropathy. The second one takes into account symptoms that may present patients with diabetic polyneuropathy so it also depends on the patient's perception and is not 100% specific, plus up to 85% of patients may not show symptoms. We must not forget that patients in whom diabetic polyneuropathy is detected should be screened for presence of peripheral vascular disease, based on palpation of the posterior tibial and pedal pulses. Often these patients have podalic alterations as hammertoes, plantar hyperkeratosis, nail diseases that increase the risk of the occurrence of ulcers, so that in each patient visit we must intentionally look for these alterations. [6]

Next step: secondary prevention

In patients in whom there is already a diabetic foot ulcer, secondary prevention has to be performed based on the election of proper treatment and the prevention of amputation. Our primary task is the physical examination, taking into account clinical signs, such as: swelling, induration, perilesional erythema, hyperaesthesia, pain, local heat and purulent exudate. It is essential to make a classification for staging the diabetic foot, in order to make a therapeutic protocol. There are several classifications that can be used, however Meggitt/Wagner is one of the most used in primary care, because it is a simple and practical scale; it values three parameters: depth, degree of infection and degree of necrosis of the ulcer.

It should not be assumed that the patient knows the importance of fulfilling his antibiotic regimen, it is necessary to explain that he has to have completed satisfactorily this treatment to have a successful outcome, emphasizing that it may be for a long period of time, as these treatments can last up to 24 weeks, and in the cases presented with an aggregate form of osteomyelitis it may require treatment for up to 46 weeks. [7-8]

Personalized education

To inform and to instruct are different from education, the last one implies that we have to individualize the educational process in each case. You cannot expect that all patients respond to just one type of educational technique.

Although the doctor has enough capacity to serve these patients in different studies it has been reported that a lot of patients with diabetes mellitus don´t have a proper adherence to their treatment, so we must question whether it is caused by a non-personalized attention.

Take Home Message

- The diabetic foot is a factor of poor prognosis, with a high rate of mortality in the next 5 years after diagnosis.
- The diabetic foot complications can be prevented in the first level of health care system, based on an educational program for the patient.
- The physical examination of the foot in each consultation is essential for early detection of diabetic foot and its complications.
- Self-care of the feet is one of the most important preventive measures in the diabetic patient.
- It is important to establish a diabetic foot staging for an appropriate treatment protocol.

Original Abstract

http://www.woncaeurope.org/content/op-398-detection-diabetic-foot

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