Peripheral Vascular Disease in Diabetes - "Make a step campaign": Effective use of Ankle Brachial Index (ABI) for both screening peripheral vascular disease and encouraging exercise in diabetic patients of medically underserved areas in Central Greece.

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Introduction

Peripheral vascular disease constitutes a well described complication of diabetes mellitus that severely affects quality of life for those affected. (1), (2), (3)

In many cases clinical signs are not evident or being neglected and only acknowledged when another major vascular complication from the heart or brain is diagnosed. (1), (3)

This project aims to increase awareness for the disease, timely screen and refer patients for specialized diagnostic workup and motivate healthy approaches to manage diabetes mellitus and its complications.

Objectives

To screen diabetic patients of medically underserved areas in Central Greece for peripheral vascular disease by using the Ankle Brachial Index (ABI).

To educate patients with diabetes mellitus regarding this complication and the need for regular follow up of the disease with their General Practitioner doctor.

To promote exercise and healthy lifestyle choices in an effort to achieve better glycemic control and prevent vascular complications of the disease.

Methods

During the time period between March and May 2016 we have examined 125 patients with diabetes mellitus in the community medical center of Farkadona in Central Greece. We have used a standardized form to obtain medical history and screen for additional vascular risk factors including hypertension, smoking and heart disease. The Ankle Brachial Index (ABI) was evaluated with a vascular Doppler (Hadeco Minidop ES-100VX) together with an appropriately sized blood pressure cuff attached to a sphygmomanometer. The measurement technique and the range of normal and abnormal values were based on verified educational resources. (4), (5)

Results

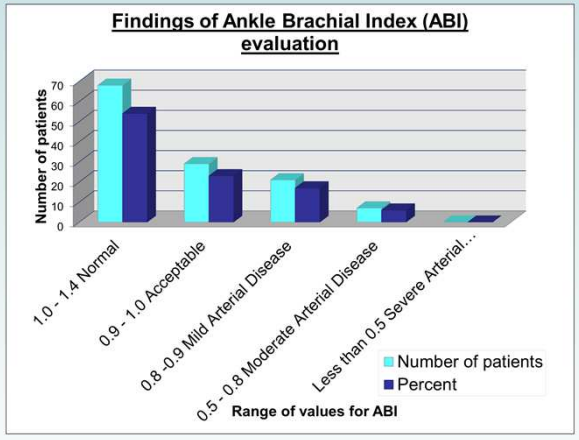

Chart 1

Chart 1: Findings of Ankle Brachial Index (ABI) evaluation.

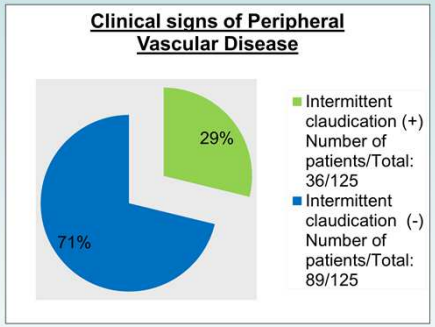

Chart 2

Chart 2: Clinical signs of peripheral vascular disease. Number of patients and respective percent that reported symptoms of intermittent claudication.

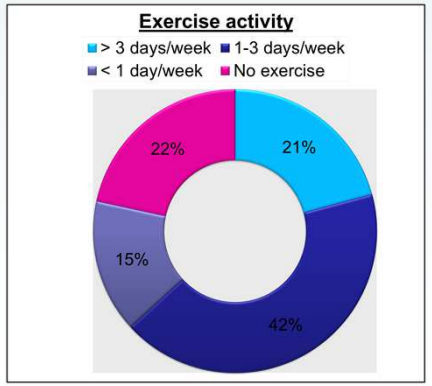

Chart 3

Chart 3: Exercise activity. Frequency of exercise during week (e.g. walking, activities related to work).

Conclusions

Abnormal values of Ankle Brachial Index (ABI) can be recorded in diabetic patients even in the absence of clinical signs of peripheral vascular disease. (Chart 1)

Although Ankle Brachial Index (ABI) represents a noninvasive method to evaluate for underlying peripheral vascular disease, special considerations regarding its diagnostic sensitivity in diabetic populations should also be considered when evaluating the results. (6)

Diabetic patients should be counseled about the benefits of exercise in every visit and efforts should be made to tailor personal needs with clinical outcomes.

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