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Research Article

Quality of Life in Patients with Peripheral Venous Insufficiency in a Family Medicine Unit in Tijuana

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Abstract

Background: The study of peripheral venous insufficiency is important, as there is an increase in risk factors such as sedentary lifestyle, working hours greater than 5 hours, advanced age, high body mass index and obesity. These factors are associated with a negative impact on the quality of life of the Mexican population. The global prevalence is estimated at 10-15% and its current frequency in Mexico is unknown.

Objective: To determine the quality of life in patients with peripheral venous insufficiency of the family medicine unit #27 of Tijuana, Mexico.

Design and Setting: Descriptive cross-sectional study.

Methods: 166 patients with a diagnosis of peripheral venous insufficiency of 40-60 years were included during January-June 2019. Information was obtained such as body mass index, age, sex, work hours in the day, educational level, physical activity, clinical degree of the disease and quality of life. Descriptive statistical analysis was performed; for qualitative variables, frequencies and percentages were used and for quantitative variables, mean and standard deviation.

Results: 71% (n=118) had deterioration in the quality of life. Low deterioration was found in 30% (n=49), moderate in 27% (n=45) and severe in 14% (n=24).

Conclusion: Peripheral venous insufficiency is present in the Mexican population and causes deterioration in the quality of life, it is important to strengthen preventive measures and reduce risk factors.

Keywords: Peripheral venous insufficiency; Quality of life

Introduction

Peripheral venous insufficiency (PVI) has been described since the human being adopted the upright position, however, its importance has been underestimated to an aesthetic problem omitting complications such as ulcers and venous thrombosis [1,2]. PVI is defined as a chronic syndrome characterized by a pathological condition of the venous system in which there is stasis in the blood return due to valvular incompetence and abnormalities of the venous wall. According to the International Phlebology Union, venous insufficiency is defined as changes in the lower extremities resulting from prolonged venous hypertension [3]. Their study is recent, perhaps due to changes in society lifestyles and the increase in risk factors such as obesity, sedentary lifestyle, pregnancy and family history [3,4]. The PVI has an important impact on the quality of life (QL) of the population. Multiple definitions for QL have been described, according to Ferrans (1990) is personal well-being derived from satisfaction or dissatisfaction with areas that are important for the person, in the physical, psychological, social, activities, material and structural spheres [5]. It is a multidimensional concept, which is referred to from the subjective experiences of people about their global health [6].

To improve the quality of life of patients, it is important to identify the risk factors, make a timely diagnosis and offer an appropriate treatment. Recently, there have been attempts to establish and identify four basic elements in venous pathology, these basic elements are those that integrate the Nicolaides classification known as CEAP, which evaluates four categories: clinical (C), etiology (E), anatomy (A) and pathophysiology (P) [7,8]. The clinical degree is subdivided into 7 categories from C0 to C6, increasing according to severity. In the first stage, C0: no signs of venous insufficiency can be seen or felt; C1: reticular veins or telangiectasias; C2: varicose veins and reticular veins of more than 3mm; C3: edema; C4: changes in the skin and subcutaneous tissue; C5: changes in skin with scar ulcer and C6: changes in skin with active ulcer.

The overall prevalence of the disease according to the different clinical degrees varies for each one; grade C0 20%, C1: 21.6%, grade; C2: 16%, grade; C3: 14.6%, grade; C4: 7.1%, grade; C5: 1.4% and C6: 0.5%. This disease affects the quality of life according to the degree and symptomatology [8]. There is few information on the incidence and prevalence of PVI. An incidence of 2% per year and a prevalence of 10% have been reported in the adult population, mainly in people over 40 and in women [9]. In primary care, it is recommended to perform primary prevention, consider risk factors, symptoms, venous status, and availability of resources and training of the doctor.

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As a first line of treatment, it is recommended to start non-pharmacological treatment, which consists of indications for venous relief in order to avoid venous hypertension of the legs. The general indications are decrease overweight and obesity, avoid sedentary and prolonged orthostatism, wear comfortable shoes with a heel less than 3 centimeters, raise legs above the level of the heart for 15 to 30 minutes, exercises and ankle extension (swimming and walking). In addition, compression therapy is useful for any stage of the disease and pharmacological or surgical treatment [3, 10]. The main objective of this research was to determine the quality of life in patients with peripheral venous insufficiency of the family medicine unit #27 of Tijuana, Mexico.

Methods

A descriptive cross-sectional study was conducted in the Family Medicine Unit #27 of the Instituto Mexicano del Seguro Social (IMSS) located in Tijuana, Baja california, Mexico. Patients were selected with a sampling technic for consecutive cases that met the following inclusion criteria: any sex, 40 to 60 years, diagnosis of peripheral venous insufficiency and who signed an informed consent letter; patients with vascular disorders due to other pathologies, diseases or disabilities (leg amputation, paraplegia, arthritis) were excluded from the sample and patients who did not completely fill in the information were eliminated. The information obtained was age, sex, hours of work per day, schooling, body mass index (BMI), and physical activity, clinical grade of PVI with CEAP classification and level of quality of life. The information was captured with a data collection sheet as follows: sex according to phenotypic characteristics, age calculated in years according to their year of birth, BMI calculated according to their size and weight, clinical grade (CEAP) according to characteristics clinics obtained in physical examination and finally physical activity, hours of work per day and schooling expressed by each patient.

The quality of life level was obtained through the "Chronic Venous Insufficiency Quality of Life Questionnaire" (CIVIQ-20), this questionnaire it is validated with a Chronbach alpha of 0.82. The instrument consists of 20 questions with responses in Likert scale with 5 response options (nothing, little, moderately, much, completely), four dimensions are assessed: pain, physical, psychological and social. The score varies between 20 and 100, where 20 corresponds to minimum quality of life and 100 maximum quality of life, subsequently an adjustment of the score index is made to obtain a result that ranges between 0 and 100 to obtain a score directly proportional to the quality of life [11,12]. The adjustment was made obtaining 5 categories according to the degree of deterioration of quality of life in the following degrees: no deterioration of quality of life 0 to 20 points, slight 21-40 points, moderate 41-60 points, serious 61- 80 points and very serious 81-100 points.

The data obtained were integrated into the data collection sheets and analyzed using the SPSS version 20 in Spanish. Descriptive statistics were performed; for qualitative variables frequencies and percentages were used and for quantitative variables mean and standard deviation. The protocol was authorized by the Local Health Research and Ethics Committee #204 with registration number R-2018-204-047.

Results

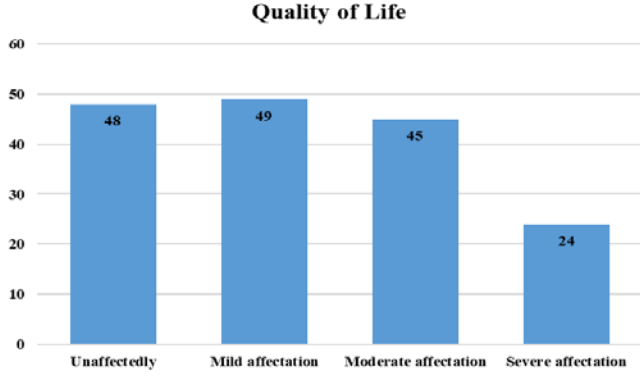
166 (n=166) patients diagnosed with peripheral venous insufficiency who met the selection criteria were included. The included population had an age range between 40 and 60 years, with a mean of ±50.47 years, the most frequent age group was over 50 years (57%, n=95). 83% (n=137) of the patients are women and 17% (n=29) men. 29% (n=48) did not show deterioration in quality of life, 30% (n=49) mild affectation, 26% (n=45) moderate and 15% (n=24) severe (Graphic 1).

In the clinical grade of the CEAP classification, no patient had zero grade (C0), 34% (n=57) grade 1 (C1), 24% (n=39) grade 2 (C2), 29% (n=48) grade 3 (C3), 8% (n=14) grade 4 (C4), 4% (n=6) grade 5 (C5) and 1% (n=2) grade 6 (C6). 66% (n=109) do not perform physical activity. The BMI found was ±32.3kg/m^2 corresponding to the degree of obesity; of the total of patients, 65% (n=108) had a BMI in degree of obesity, 25% (n=41) overweight and 10% (n=17) normal. 50% (n=83) of the population work more than 8 hours, 17% (n=28) work 6 to 8 hours, 5% (n=7) work less than 6 hours and 29% (n=48) do not work. Finally, the educational level found was 45% (n=74) for primary school, 41% (n=18) secondary and 4% (n=6) bachelor's degree.

Discussion and Conclusion

The main finding of the study was that the majority of the population (71%) perceived some degree of deterioration in their quality of life, which coincides with Soydan (2016) who describes that patients with peripheral venous insufficiency have low quality of life [1]. In our study, patients presented a mild to moderate deterioration in their quality of life (30% and 27% respectively). In our study the most frequent grade was grade 1 (C1) with 34%, grade 3 (C3) and grade 2 (C2), 29% and 24% respectively, these results are similar to those found by Bozkurt (2017) in Portugal [8], however, the percentages of our study were slightly higher and no patient was found in grade 0 (C0), which suggests that our patients have more advanced clinical degrees and with a higher risk of complication.

On the other hand, coinciding with previous studies such as Vázquez-Hernández (2016), peripheral venous insufficiency occurs in patients older than 40 years and more frequently in women [9]. Bonet found more frequency of PVI in patients over 50 years old, coinciding with our result, where 57% of the population is over 50 years old and 83% women [13]. 66% of our population does not



Graphic 1: Quality of life in PVI.

perform physical activity and only 10% have a normal body mass index, obtaining a population average of ±32.3kg/m^2, which is an alarming fact that emphasizes the need to promote physical activity two or more times per week in order to improve the quality of life. Soydan reports an association between deterioration in the quality of life with the presence of edema and pigmentation corresponding to C3 and C4 of CEAP, advanced age, high BMI and long working hours [1], which are similar characteristics in our population, 67% works more than five hours, 57% are over 50 years old, 29% are in CEAP grade C3 and 65% have obesity.

In conclusion, the results show that the quality of life is affected in patients with peripheral venous insufficiency by 71% and most have early stages, which highlights the importance of implementing preventive measures, limb revision and stratification of the degree clinical to improve the integral treatment and improve the quality of life.

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