

HEALTH NEEDS OF PATIENTS WITH CHRONIC LOWER LIMBS ISCHEMIA IN GENERAL PORT SAID HOSPITALS

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ABSTRACT

Background: Chronic limb-threatening ischemia (CLTI) is linked to a lower quality of life chronic limb ischemia represents the end stage of peripheral arterial disease and is associated with a high risk of limb amputation. **Aim:** To assess health needs of patients with chronic lower limbs ischemia in general Port Said hospitals. **Subjects and method:** **Design:** Descriptive research design was used in the study. **Setting:** The study was conducted at surgical, diabetic outpatient clinics at El Mabara hospital), Due to renovation on building in other hospitals. **Subjects:** A convenient sample of eighty male and female patients who diagnosed with chronic lower limbs ischemia were included. **Tools:** Data were collected using three tools, Tool I patients assessment questionnaire Tool II Patients physical examination Tool III patients health needs questionnaire. **Results:** The result of study indicated that 64.5% had inadequate leg exercise, 67.5% had unsatisfactory foot care and 82.5% had unhealthy diet. **Conclusion:** most of studied patients had inadequate exercise, unsatisfactory foot care and unhealthy diet **Recommendations:** There are clear requirements for conducting health education about exercise, importance of foot care and having a healthy diet.

Key Words: Chronic lower limbs ischemia, Health needs

INTRODUCTION

Chronic limb-threatening ischemia (CLTI) is associated with mortality, amputation, and impaired quality of life. It is a clinical syndrome defined by the presence of peripheral artery disease in combination with rest pain, gangrene, or a lower limb ulceration >2 weeks' duration. Venous, traumatic, embolic, and non-atherosclerotic etiologies are excluded. All individuals with suspected CLTI should be sent to a vascular expert as soon as possible (Kaushal et al., 2019). Usually patients with lower extremity ischemia are split into two groups; intermittent claudication, and CLLI, according to presenting symptoms, claudication and CLLI are treated differently as a result of major natural historical differences and expected clinical results following treatment (Van Haelst et al., 2018).

Health needs of patients with chronic limbs ischemia includes assessment of patient's past, present, family, medical history, and physical examination of the presence symptoms, promoting blood circulation, foot care by daily washing of the foot with warm water and soap, careful drying by pressing gently, moistening the foot after drying it, take care of foot nails and wearing appropriate shoes and cotton socks (Fahey, 2016).

Prevention of circulation weakness in the lower limbs by paying attention to diabetic patients through assessment of blood glucose level, changing wrong behaviors, improving the quality and quantity of food, maintaining normal blood pressure by assessment of it frequently, healthy diet, decreasing blood cholesterol level and adhering to antihypertensive drugs (Farber, 2018, Aitken S. J. 2020). Diets should contain vegetables, fruits, vitamin C as citrus, vitamin E like nuts and drinking plenty of water, reduction of fat, starches, salt, tea and coffee (Krishnamoorthy, B, 2020).

AIM OF THE STUDY

To assess health needs of patients with chronic lower limbs ischemia in general Port Said hospital

Research Question:

What are health needs of patients with chronic lower limbs ischemia in general Port Said hospitals?

SUBJECTS AND METHOD:

Study design: -A descriptive study design was utilized in the current study.

Study setting: - The study was conducted in surgical and diabetic outpatient clinic at (El-Mabarh hospital), Due to renovation on building of El-Slam hospital, El-Zohordue general hospital .So all patients were referred to (El-Mabarh hospital).

Sample size: - Determined by using the following equation (Dobson, 1984):

$$\text{Sample size (n)} = \frac{Z^2 P (100 - P)}{D^2}$$

P = the prevalence of chronic lower limbs ischemia in to the expected non-participating rate (10%)
 The total number of patients in the final sample was 80, N=Population size, Z²=a percentile of standard normal distribution determined by 95%, Confidence level=1,95², D²=the width of the confidence interval =5

$$\text{Sample size (n)} = \frac{1.96^2 \times 6.3 \times (100 - 6.3)}{5^2} = 80 \text{ patients}$$

Study subjects: - A convenient sample of (80) patients, diagnosed with chronic lower limbs ischemia were included.

Tools of data collection: -

Three tools were used in this study:

Tool I: Patients' assessment questionnaire

This tool was developed by researcher after reviewing of recent related literatures (Katzen, 2019, Rudofker, Hogan & Armstrong, 2018, Younas, F., & Rogers, R. K. 2019). To assess personal characteristics and medical and surgical history of studied patients, it consists of two parts:

Part 1: Personal characteristics of studied patients:

It was concerned with personal characteristics as age, sex, marital status, education and occupation.

Part 2: Patients' medical and surgical history:

It includes duration of disease, past, present, medical and surgical history, past medical history such as diabetes, hypertension, coronary artery diseases and dyslipidemia, present history as presence of any risk factors as smoking and Patient's habits, any previous surgical procedures as graft bypass and deep venous as thrombosis, the medications used (Antihypertensive agent, insulin or oral hypoglycemic agent and anti-coagulable agent) and previous surgery.

Scoring system: Any yes answer takes (1) & answer with no takes (2).

Tool II: patients' physical examination: This tool was developed by researcher after reviewing of recent related literatures (Duwayri et al, 2020, Delaney, Smale, & Miller, 2019) It included four parts: **First part, physical examination** (8 items), measuring body weight, height, calculate body mass index, evaluate lower legs, inspect the skin (color, appearance) palpate the skin temperature using the palm of hands, evaluates nail beds, perform the capillary refill test (3second or below) indicates normal findings, note presence of edema, and ecchymosis at legs. **Second, Pain assessment** (13items) collects data about onset of claudication (during activity only, during rest), assess (pain, site, quality, severity, precipitating and relieve factors. **third, peripheral pulse site assessment** (3items) by palpable tibial, popliteal and femoral pulse. **fourth: Mobility impairment and rest assessment** (2) items, monitor mobility impairment.

Scoring system:

Total physical examination score: Normal; ($\geq 70\%$), abnormal ($< 70\%$). **Total pain score:** Mild (1), Moderate (2) Sever (3). **Total pulse score:** All three not palpable (0), only one are palpable; (1), only two are palpable (2), all three are palpable (3), & **Mobility score:** mild limited (1), moderate limited (2), sever limited (3) Graf. (2018).

Tool III: Patients' health needs questionnaire: It includes 38 items as the following exercise (4 items), foot care (14 items) and diet (10 items) This tool was developed by

researcher after reviewing of recent related literatures (**Katzen, 2019, Levin, S. R., Arinze, N., & Siracuse, J. J. 2020**) to assess patients' needs regarding lower limbs ischemia by collect data about methods to improving circulation among them as exercise, assess patients usual rest and its time and activity (walking, leg exercise, activity of daily living), foot care, usual diets.

Scoring system:

Total exercise score: Adequate; ($\geq 70\%$), UN adequate; ($< 70\%$), **Total patient's foot care:** Satisfactory; ($\geq 70\%$) & unsatisfactory ($< 70\%$), **Total diet score:** Healthy ($\geq 70\%$) & unhealthy ($< 70\%$) except excessive tea and coffee, **Buist and Dassen. (2016).**

Validity:

It will be used to modify the tools .it ascertained by Jury of (11) expertise from academic medical surgical nursing and necessary modifications are done according to the experts opinions for clarity, relevance, comprehensiveness, understandable and applicability.

Reliability: the reliability test was done for tools using Cronbach's alpha coefficients to assess the internal consistency of tools, *tools one* reliability test showed (0.83%), tool two (0, 92%) and tool three(7, 13%).

Pilot study:

After evaluating the pilot study findings, the necessary adjustments were made. A pilot study was conducted on 10% of the sample to evaluate the applicability and clarity of the tools, estimate the time needed for data collection, and test the practicality of performing the research. These patients were not enrolled in the study.

Field work:

Data were collected from studied patients at previously mentioned setting three days per week, from 9:00 am to 12:00 pm from the start of July to the end of December 2019. Tool I, Tool III, were filled by every patient, tool two patient's physical examination was performed by the researcher. Data collection take time ranged from (30-45) minutes.

Administrative design:

An official letter was issued from the Dean of the faculty of nursing, Port Said University to head of El- Mabarh hospital to obtain their permission to conduct the study.

Ethical considerations:

Throughout the ethical committee approval from the dean of hospital, all ethical considerations were taken into account. An informed consent was obtained from nurses to participate in the study. The aim of the study and its procedures were explained to each patient before starting data collection. The patients had the right to accept, refuse, or withdrawal from the study at any time. The researcher maintained confidentiality and anonymity of the participants.

Statistical Analysis:

Data collected were arranged, tabulated and analyzed according to the type of each data. Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp).Data were presented using statistics in the form of frequencies and percentages for qualitative variables and body mass index can calculated by persons weight in kilograms divided by the square of height in meters to measure weight category - underweight, healthy weight, overweight and obesity, BMI categories includes ideal (<25), [overweight/ Obese] consisting overweight (25-29.9), Class I obesity (30-34.9) &Class II obesity (35-39.9). (Buso, Aboyans, & Mazzolai, 2019).

RESULTS

Table (1): shows that 41.25% of studied patients were falls between 50 to 60 years old, 50% were female, and 81.25% were married. Only 28.75% had basic education. And 35% were housewives.

Table (2): illustrates that 27.5% of studied patients suffer from lower limbs ischemia more than 10 years. 60% had a family history of CLI, 45% were complained of hypertension, 55% were suffer from diabetes, 43.8% had previous vascular surgeries, 53.8% adhere to medications. 32.5% use antihypertensive agents, 42.5% use insulin or oral hypoglycemic medication, 63.7% were smokers, and two third of them used cigarette more than 10 years. Additionally, 87.5% depend on medications to control the incidence of lower limb ischemia. And 46.25% of the studied sample using weight reduction to control lower limb ischemia.

Table (3): reveals that 53.75% of studied patients were overweight (obese).68.75% had normal skin color, 48% had pale color, 75% had normal skin temperature when using

surface of hands, 53.75 had abnormal skin appearance, 46.5% had dry skin and 67.5% had normal nails, 88.75% had abnormal capillary refilling, and 48.75% of the studied sample had leg swelling, and 85% were totally abnormal physical examination of studied patients with chronic lower limb ischemia.

Table (4): demonstrates that 70% of studied patients reported that pain was felt during activity, 41.25% was continuous onset. 75% felt in lower limbs, 48.75% burning pain, 71.25% moderate in severity, 45% precipitates by excess efforts, 33.75% depend on massage to decrease pain, 58.75% had intermittent claudication, about 74.5% during activity only. And 52.5 % uses analgesics to relieve pain.

Table (5): Shows that 58.8% of the studied patients keeping feet warm, 57.5% reported that walk daily, whatever 61% practice mild exercises (activity of daily living) , 39% practices the leg-exercises, about 51.6% practices the leg-exercises for once daily. And total leg exercise score were in adequate (<70%) in 64.5% of studied patients.

Table (6): Demonstrates that 100% wash feet daily, 50% use warm water, 66.25% test water temperature using elbow. Only 26.25% dried between toes carefully. 72.5% trim toe nails straight across, 37.5% wear shoes at all time, 51.25% avoid using tight socks and tight shoes. 75% ignore check shoes for any objects, 78.75% inspect feet regularly, and 42.5% follow up the physician regularly. Also the table reveals that 67.5% achieves unsatisfactory foot care.

Table (7): plays that 76% follow diet containing proteins at moderate amounts. 56% of diet was containing carbohydrates at moderate amounts, 52.5% have high fat diet. Whatever 32.5% take fresh fruits and vegetables in diet, 47.5% of diet rich vitamin C as (lemon, orange). 87.5% drink suitable amount of water. Also 74% use few amount salt in diets. And 32.5 use few amount tea and coffee. The table shows total diet score healthy diet ($\geq 70\%$) was in 17.5% of studied patients.

Table (1): personal characteristics of studied patients with chronic lower limbs ischemia

Items	No.	%
Age		
20<30 years	13	16.25
30<40 years	17	21.25
40<50 years	17	21.25
50-60 years	33	41.25
Range: 24.0 – 60.0 years, Mean \pm SD = 52.23 \pm 8.10 years old.		
Sex		
Male	40	50
Female	40	50
Marital status		
Single	6	7.5
Married	65	81.25
Divorced	9	11.25
Education level		
Illiterate	21	26.25
Basic education	23	28.75
Secondary school	20	25
University	16	20
Occupation		
Professional worker	24	30
Manual worker	16	20
Housewife	28	35
Retired	12	15

Table (2): Health history of studied patients with chronic lower limbs ischemia

Items	No.	%
Duration of disease		
<4 years	21	26.25
4<7 years	18	22.5
7<10 years	19	23.75
More than10 years	22	27.5
Family history of chronic lower limb ischemia		
No	48	60
Yes	32	40
Father	21	26.25
Mother	23	28.75
Brother/Sister	4	5
Chronic disease*		
Hypertension	36	45
Diabetes	44	55
Coronary heart disease	10	12.5
Peripheral neuropathy	10	12.5
Previous vascular surgery	35	43.8
Ligation and stripping surgery	28	80
thrombctomy surgery	7	20
Adherence to various medications		
Yes	43	53.8
No	37	46.2
*The medication used	36	
Antihypertensive medication	44	45
Insulin or oral hypoglycemic medication	10	55
antihypertensive medication and insulin or oral hypoglycemic agent	10	12.5
Anti-coagulable medication		12.5
Smoking status:		
Non-smoker	29	36.3
Current smoker	51	63.7
Smoking duration:		
< 5 years	7	13.7
5 > 10 years	12	23.6
More than 10 years	32	62.7
Management for control lower limb ischemia by medications		
Yes	70	87.5
No	10	12.5
Measures reported by patients to control disease		
Previous surgery	35	43.75
Quit smoking	8	10
Weight reduction	37	46.25

*Answer not mutually exclusive

Table (3): Physical examination of studied patients with chronic lower limbs ischemia

Items	No.	%
BMI categories		
Ideal (<25)	37	46.25
Overweight/ Obese]	43	53.75
Overweight (25-29.9)	26	60.5
Class I obesity (30-34.9)	8	18.5
Class II obesity (35-39.9)	9	21
Skin color:		
Normal	55	68.75
Abnormal skin color:	25	31.25
Bluish	6	24
Pale	12	48
Reddish	7	28
Skin temperature using surface of hands:		
Normal (warm)	60	75
Abnormal (cold)	20	25
Skin appearance:		
Normal	37	46.25
Abnormal	43	53.75
Shiny	11	25.5
Thick	12	28
Dry	20	46.5
Nails:		
Normal	54	67.5
Abnormal	26	32.5
curved	4	15
thick	22	85
Capillary refill 3second or below 3second:		
Normal	9	11.25
Abnormal	71	88.75
Lower limb swelling	39	48.75
Leg	22	56.4
Feet	17	63.5
Total physical exam score (Maximum = 10)		
(≥70%) Normal	12	15
(>70) Abnormal	68	85

Table (4): lower limbs pain assessment among studied patients.

Items	No.	%
Onset		
During activity only	56	70%
During rest and activity	24	30%
Time of pain		
Transient	15	18.75
Intermittent	32	40
Continuous	33	41.25
Site of pain		
Lower limbs	60	75
Lower limbs and buttock	20	25
Quality of pain		
Burning	39	48.75
Tingling	36	45
Cramping	5	6.25
Severity of pain as patients' reported		
Mild	17	21.25
Moderate	57	71.25
Severe	6	7.5
*Factors precipitating pain reported by patients		
Walking	20	25
Excess effort	44	45
Standing for a long time	65	18.75
Sitting for a long time	71	11.25
Pain relieve measures reported by patients		
Cold applications	24	30
Warm applications	9	11.25
Positioning	8	10
Massage	27	33.75
Banding	9	11.25
Limb rest	3	3.75
Intermittent claudication		
Yes	47	58.75
No	33	41.25
Onset of intermittent claudication		
During activity only	35	74.5
During rest and activity	12	25.5
Uses of analgesics		
Yes	42	52.5
No	38	47.5
Total pain score		
Mild (1)	17	21.25
Moderate(2)	57	71.25
Sever (3)	6	7.5

*Answer not mutually exclusive

Table (5): Exercise assessment and health need among studied patients.

Items	No.	%
Keep feet warming		
Yes	47	58.8
No	33	41.25
Daily walking		
Yes	46	57.5
No	34	42.5
Practicing exercise		
Mild (Activity of daily living)	49	61
Moderate (Leg exercise)	31	39
Frequency of leg exercise:		
Once daily	16	51.6
Twice daily	15	48.4
Total leg exercise score		
($\geq 70\%$) Adequate	11	35.5
(<70%) inadequate	20	64.5

Table (6): Foot care and health needs among studied patients.

Items	N	%
Wash feet daily		
Yes	80	100
No	0	0
Use warm water		
Yes	40	50
No	40	50
Test water temperature		
Yes	53	66.25
No	27	33.75
Dry feet carefully		
Yes	21	26.25
No	59	73.75
Put moisture lotions daily		
Yes	10	12.5
No	70	87.5
Trim toe nails straight Across		
Yes	58	72.5
No	22	27.5
Clean nails with sharp instruments		
Yes	0	0
No	80	100
Wear suitable shoes		
Yes	30	37.5
No	50	62.5
Avoid use tight socks		
Yes	41	51.25
No	39	48.75
Avoid use tight shoes		
Yes	41	51.25
No	39	48.75
Check shoes for any objects		
Yes	20	25
No	60	75
Inspect feet regularly		
Yes	63	78.75
No	17	21.25
Feet care for any injury		
Yes	36	45
No	44	55
Follow up physician regularly		
Yes	34	42.5
No	46	57.5
Total foot care score:		
(≥70%) Satisfactory	26	32.5
(<70%) Unsatisfactory	54	67.5

Table (7): Diet assessment and health needs among studied patients.

Items	No.	%
Diet containing proteins at moderate amount		
yes	61	76
No	19	24
Diet containing carbohydrates at moderate mount		
Yes	45	56
No	35	44
Fatty Diet at minimum amount		
Yes	42	52.5
No	38	47.5
Milk and milk dairy products		
Yes	40	50
No	40	50
Fresh fruits and vegetables		
Yes	26	32.5
No	54	67.5
Diet containing vitamins C		
Yes	38	47.5
No	42	52.5
Excessive water		
Yes	70	87.5
No	10	12.5
Excessive salty Diet		
Yes	21	26
No	59	74
Excessive tea and coffee		
Yes	54	67.5
No	26	32.5
Total diet score:		
($\geq 70\%$) Healthy	14	17.5
(<70%) Unhealthy	66	82.5

DISCUSSION

Lower limb ischemia affects over 200 million individuals globally and is a leading cause of vascular morbidity Shu & Santulli., (2018). The majority of peripheral artery disease patients have (LLI), which is characterized by persistent resting foot discomfort and/or tissue necrosis. Chronic lower limb ischemia represents the end stage of PAD it is linked to a lower QOL, high morbidity and mortality Uccioli, et al., (2018). The current study reported two fifth of studied patient ranged from fifty to sixty years old, half sample were female, most sample were married and more than quarter had basic education and were housewives. In the present study, two thirds of the studied patients had positive family history of chronic lower limb ischemia, less than half suffer from hypertension, more than half patient were complained DM and less than quarter had heart disease. It may due to the most risk factors of chronic lower limb ischemia are hypertension and DM. This result is supported by Desoky, Mohamed, Khhalil & Ahmed (2014) entitled as The impact of a nursing education regimen on the quality of life of patients with chronic lower limb ischemia at Assiut University Hospital and revealed that more than half of their participants were having positive family history of chronic lower limb ischemia, and were smokers, diabetics and have systemic hypertension.

The current study showed that less than half of studied patients underwent vascular surgeries; and the majority of them had ligation and stripping surgery. It may due to CLI is associated to decrease blood supply.

That's similar to the systematic review by Farber & Eberhardt, (2018) reported that revascularization is the cornerstone of treatment to prevent limb amputation, and both the open vascular surgery and the endovascular therapy play a key role in the treatment of patients with critical limb ischemia. In the present study, two third of the studied patients were smokers. . It may due to the most risk factors of CLI is smoking. That's agree with Zettervall, Marshall, Fleser& Guzman, (2018) in their study about anterior calcification and chronic limb ischemia in individuals with peripheral artery disease, studied the common risk factors for PAD and CLI and found that the majority of their participants had a history of smoking. majority of patients depended on medications to control the diseases in the research .The result were agree with a study done by Iacopi et al., (2019) to assess adherence to medicinal treatments indicated by guidelines in type 2 diabetes individuals with persistent limb ischemia, reported that several medications may be

prescribed to prevent further progression of the disease and to reduce the effect of contributing factors such as high blood pressure, high cholesterol and diabetes, and most certainly to reduce the pain.

Regarding the physical examination of studied patients, it was detected that more than half were obese. It's in agreement with a prospective study by Farah, Ritti-Dias, Cucato, Montgomery & Gardner, (2016) entitled "*factors associated with sedentary behavior in patients with intermittent claudication*" on patients with symptomatic CLI's characterized factors associated with various degrees of sedentary lifestyles. In the present study majority of patients had abnormal capillary refill, and nearly half patients complained of limb swelling. This result were agree with Moulson, (2017) who reported that limb swelling or edema and abnormal capillary refill is a major signs in CLI patients.

In addition, those patients often hold their limbs to alleviate ischemic rest pain; combined with impaired vasomotor control that leads to further aggravation of that swelling.

Finding of this study emphasized that, majority of patients complained of pain and claudication during activity only and one third complained of it at rest and more than half of studied patients depend on analgesics to relief pain. It is disagree with the study by Setacci et al., (2018) which reported that half of critical ischemic patients had no previous history of intermittent claudication, and severity of intermittent claudication did not correlate with the stage of the disease. Additionally, disagree with Chan et al., (2019) who stated that the majority of patients described pain at rest\night when the lower extremities are elevated and perfusion is no longer assisted by gravity and they described pain with leg elevation that was relieved by dangling the extremity over the edge of the bed or by sleeping in a chair. However, consistent with the study by Olinic, Stanek, Tătaru, Homorodean& Olinic, (2019) who reported that most patient experienced severe pain and hyperesthesia of the affected limb during activity.

Regarding exercise, our results asserted that more than half of the studied patients practiced daily walking, but one third only practiced leg exercise. This is due to obesity, presence of heart disease, high blood pressure, diabetes. Metabolic syndrome, poor nutrition, decrease muscle strength, bad sleep habit and lack of motivation, awareness and time. The result goes in the same line with Monteiro et al., (2018) who develop a protocol for assessing the benefits of a foot-ankle therapeutic exercise program in CLI patients has

been developed and documented that most of patients had low compliance to exercise and physical activity especially people with diabetes.

In the present study, concerning foot care, it explored that most of the studied patients' practices were unsatisfactory. This is due to obesity, decrease muscle strength, lack of motivation, awareness and time. Similarly, results of the study by Madushan & Jeewantha, (2019) that intended to evaluate preventative foot care strategies in chronic limb ischemia patients, demonstrated unsatisfactory preventive techniques of foot care.

On completing our data, it revealed the majority of studied patients ate unhealthy diet. This is due to physically difficult to prepare meals, digestive disorders, low income, older adult, socially isolated, bad eating habit, chronic eating disorders, lack of food and high food prices.

This finding goes in the same way with the findings of a large-scale European study by Brotons, Drenthen, Durrer & Moral, (2012) of nearly 8000 CLI patients, designed to assess their attitudes towards lifestyle, activity & nutrition. The study concluded that most of patients with unhealthy lifestyles and diet.

Additionally, it's consistent with the study by duwayri et al., (2020) entitled; *"Impact of nutritional state on critical limb ischemia early outcomes"*, and included 106 patients found that the three quarters of their participants were malnourished; divided into moderate and severe malnutrition. Conclusively, CLI is a progressive vascular disease without a cure, but its treatment is available and lifestyle changes may help stop the progression.

CONCLUSION

Based on the current study findings, the health needs are exercise, foot care, and dietary modification related to lower limb ischemic disease.

RECOMMENDATIONS

- Establishment of continuous health education program at outpatient clinics to provide health teaching using booklet & illustrated pamphlets for each patient especially those who can't read and write about important of foot exercises for improving circulation.
- Advocate patients to quit smoking by explaining importance of quitting smoking to patients and provide the means help patients to quit smoking.

- Designing health education programs about the methods and importance of maintaining the ideal weight for patients with ischemic lower extremities.

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الاحتياجات الصحية لمرضى قصور الدورة المزمن للاطراف السفلية الدموية في مستشفيات

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الخلاصة

قصور الدورة الدموية المزمن في الاطراف السفلية يسبب انسداد جزئي و كلي في الشرايين وهذا القصور أكثر شيوعا في كبار السن، المدخنين ويسبب العديد من المضاعفات و الوفيات لذلك لابد من العناية التمريضية لهؤلاء المرضى. هدفت هذه الدراسة الي تقييم الاحتياجات الصحية لمرضى قصور الدورة الدموية للاطراف السفلية في مستشفيات بور سعيد وأجريت هذه الدراسة في مستشفى المبرة بسبب اجراء تطوير في مستشفى السلام العام ومستشفى والزهور لوجود التامين الصحي الشامل. وقد اشتملت عينة الدراسة علي 80 مريض.وقد جمعت المعلومات عن طريق استمارة استبيان مقسمة الي(البيانات الشخصية،التاريخ الطبي) والفحص الجسماني للمريض (تقييم الالم،النبض في الاطراف السفليّة والحركة والاعراض الظاهرة)واستمارة الاحتياجات الصحية لمرضى قصور الدورة الدموية للاطراف السفلي وقد أظهرت النتائج أن أكثر من نصف المرضى مدخنين، أكثر من نصفهم يعانون من السمنة ، أكثر من نصف العينة مستوي ممارستهم التمارين الرياضية غير كافي ،وايضا أكثر من نصف المرضى مستوي العناية بالقدمين غير مرضي ومعتاد معظمهم علي طعام غير صحي وأوصت الدراسة بأعطاء العديد من الدورات التدريبية للمرضي عن اهمية وكيفية تقليل الوزن ومنع التدخين م وممارسة التمارين الرياضية بانتظام والعناية بالقدمين واهمية تناول الطعام الصحي المتوازن ومكافحة عوامل الخطر مثل الحفاظ علي وزن مثالي ، توقف التدخين والمحافظة علي مستوي السكر في الدم وضغط الدم.

الكلمات المرشدة : قصور الدورة المزمن،الاحتياجات الصحية.