

ASSESSMENT OF THE KNOWLEDGE HEMODIALYSIS PATIENTS HAVE OF THE ARTERIOVENOUS FISTULA AND ITS CARE

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INTRODUCTION

Compared to other connections, native arteriovenous fistulae are known for their low number of infections or thrombotic complications. Native arteriovenous fistulae are given the priority in cases of chronic kidney diseases.

Patient education is a powerful tool when striving to achieve that the native arteriovenous fistula functioned for as long as possible and to ensure successful hemodialysis. The goal of this study was to assess the knowledge possessed by patients undergoing hemodialysis in relation to native arteriovenous fistulae and their care.

METHODS

The study was carried out at six hemodialysis centers located in five Lithuanian cities in February 2018.

A questionnaire-based survey was used as a tool of descriptive quantitative analysis. The questionnaire was based on scientific literature and medical practice.

A total of 100 patients undergoing hemodialysis participated in the study. 53 of the patients were female and 47 were male. The age of the respondents ranged from 25 to 85 years, with the average age being 56.6 years. Patients with secondary education (42.0%) and higher education (25.0%) were prevalent.

RESULTS

(The colored tabs in tables correspond to the correct reply)

SYMPTOMS INDICATING THE NEED TO CONTACT THE HEMODIALYSIS CENTER IMMEDIATELY

The study revealed whether patients were sufficiently informed about the symptoms indicating that they must immediately contact the hemodialysis center. The majority of male and female respondents named the pain and disappearance of the vibration (thrill) sensation in the area of fistula as a symptoms urging them to go to the hemodialysis center. It was noted that males were more inclined to contact the hemodialysis center than females. Sadly, in cases of many other symptoms, a bit less than half of the respondents would reach out for help. It was concluded that patients are underinformed about these matters.

Symptoms	Female	Male
In case of the vibration sensation in the fistula area disappears	92.5	87.2
In case of swelling in the fistula area	39.6	40.4
In case the fistula becomes warmer than usual	30.2	40.4
In case of a pulsating feeling	9.4	10.6
In case of pain	62.3	66.0
In case of hardening	37.7	40.4
In case of reddening	35.8	31.9
In case of secretion	28.3	36.2
Fever	22.6	23.4
I do not know	1.9	-

PATIENT DISTRIBUTION WITH RESPECT TO ARTERIOVENOUS FISTULA CARE

The study revealed what patients knew about arteriovenous fistulae and how they took care of them. The same questions as the ones in Table 2 were used to compare the knowledge and practical skills of the respondents. Certain similarities were noticed. All patients knew and refrained from measuring blood pressure on the fistula arm. Most of the patients were aware that they could not allow taking blood samples or injecting medication into the arteriovenous fistula arm. They also could not wear bracelets and watches and were following these rules closely. Even though only 40.0% of the patients knew the exact recommended weight that they could carry, the good news was that as many as 84.0% of the patients did not carry more than 5 kg. The majority of the patients knew that they had to wash their arm before hemodialysis and take the bandage off right after coming home. Yet, a lower number of patients followed these rules in practice.

Questions	Yes	No	Sometimes
1. Do you measure blood pressure on the fistula arm?	0	100	0
2. Do you allow to take blood samples from the veins of the fistula arm?	6	91	3
3. Do you allow to inject medication into the fistula arm?	6	94	0
4. Do you use the fistula arm when carrying weights heavier than 5 kg?	5	84	11
5. Do you take the bandage off the fistula straight after returning from the dialysis?	79	18	3
6. Do you take the bandage off the fistula only on the next day?	63	32	5
7. Do you wash the fistula arm before hemodialysis?	79	12	9
8. Do you wear bracelets on the fistula arm?	4	93	1
9. Do you wear a watch on the fistula arm?	3	96	1
10. Do you sleep on the side where the fistula is located?	24	43	33
11. Do you check the vibration sensation that the fistula makes every day?	71	17	12
12. Do you check the vibration sensation at least 3 times a day?	21	69	10
13. Do you use the Heparin gel on the fistula arm?	80	6	14

Two thirds of the respondents were aware that they should check the vibration sensation emitted by the fistula every day. However, only one fifth of the patients knew and practiced checking it no less than three times a day. Even though as many as 77.0% of the patients were aware that sleeping on the side with the fistula was not recommended, only 43.0% of the patients followed this recommendation.

The respondents showed a high level of knowledge of the native arteriovenous fistula. However, even though the patients knew certain principles of fistula care, they did not follow all of them in practice.

CONCLUSIONS

The study helped to determine what knowledge the patients lacked and which principles of taking care of the arteriovenous fistulae should be explained more frequently by physicians and nurses.

Regular use of the tools employed in the study and assessment of the knowledge of patients about hemodialysis and taking care of the arteriovenous fistulae may result in improved patient education programs. This would also reduce the frequency of native arteriovenous fistula complications, morbidity and mortality rate, and decrease the expenses incurred by the government related to various complications.