Revista Colombiana de Nefrología
Vol. 10, Núm. 2 (2023) - Publicación continua
http://doi.org/10.22265/acnef.10.2.647

Original article

Cross-sectional study of quality of life in relation with vascular access in hemodialysis patients. Study in a hospital and a satellite center

Maria Maldonado[1], Cristina Fuentes[1], Carlos Santos-Alonso[1], Miguel Ángel Navas[1], Laura Álvarez[1], Rafael Sánchez-Villanueva[1], María Pilar Martínez[2], Israel Leblic[3], Marta Ossorio[1,4], Gloria del Peso[1,4,5,6] y María A. Bajo[1,4,5,6]

[1]Department of Nephrology, University Hospital La Paz, Madrid, Spain
[2]Care manager of the hemodialysis center ."El Pilar"
[3]Department of Angiology and Vascular Surgery, Hospital Universitario La Paz, Madrid, Spain
[4]Research Institute La Paz (IdiPAZ), Madrid, Spain
[5]Renal Research Network (REDINREN), Health Institute Carlos III, Madrid, Spain
[6]Autónoma de Madrid University, Spain

How to cite: Maldonado M, Fuentes C, Santos-Alonso C, Navas MA, Álvarez L, Sánchez-Villanueva R, et al. Cross-sectional study of quality of life in relation with vascular access in hemodialysis patients. Study in a hospital and a satellite center. Rev. Colomb. Nefrol. 2023; **10**(2), **e647**. https://doi.org/10.22265/acnef.10.2.647

Submission:
03/Aug/2022
Acceptance:
22/Mar/2023
Published:
14/Jun/2023

Abstract

Introduction: Vascular access for hemodialysis (HD) is essential for the patient. Even though Arteriovenous fistula (AVF) is the preferred access, in certain age groups, the central venous catheter (CVC) may provide advantages. This study aims to investigate the quality of life related to vascular access.

Methods: Cross-sectional study including patients from a hospital, a home HD unit and a satellite hemodialysis center. Clinical data was collected from the patients, who went through a quality-of-life questionnaire SF12 and a Vascular Access Questionnaire (VAQ).

Corresponding author: Cristina Fuentes, Nephrology Department, Hospital Universitario La Paz, Paseo Castellana 261, 28046, Madrid, Spain. E-mail: cfuentes@salud.madrid.org

E-ISSN: 2500-5006/L-ISSN: 2389-7708

Results: 91 patients participated, mostly male (70 %), with a mean age of 68.9 ± 16.2 years. AVF was the current vascular access in 60.4 %, the rest used a CVC. Home HD was performed in 12.1 % of patients and 76 % started it via CVC. Regarding patients who have had both AVF and CVC, 58 % prefer AVF and only 26.5 % of current CVC carriers would have a new AVF, mostly due to fear of pain (52 %). Most people (72.5 %) reported having received sufficient information, with no differences between both accesses. The SF12 results showed no differences between patients with AVF or CVC. Regarding the VAQ, patients with AVF were more satisfied with the social aspect ($p = 0.036$) and complications ($p = 0.006$).
Conclusion: Patients with AVF had better outcomes than those using CVC regarding complications and social aspects. These differences are not attributable to a worse overall quality of life status of CVC patients. Most patients with CVCs refuse to go through a new AVF for fear of puncture pain.

Keywords: Quality of life, arteriovenous fistula, central venous catheter, hemodialysis, home hemodialysis, nursing.

Estudio transversal de la calidad de vida en relación con el acceso vascular en pacientes en hemodiálisis. Estudio en un hospital y un centro hemodiálisis periférico

Resumen

Introducción: el acceso vascular para la hemodiálisis (HD) es esencial para el paciente. Aunque la fístula arteriovenosa (FAV) es el acceso preferido, en ciertos grupos de edad el catéter venoso central (CVC) puede aportar ventajas. Este estudio pretende investigar la calidad de vida relacionada con el acceso vascular.
Métodos: el estudio transversal incluye pacientes del hospital, de una unidad de HD domiciliaria y de un centro de hemodiálisis periférico. Se recogieron datos clínicos de los pacientes que contestaron el cuestionario de calidad de vida SF12 y Cuestionario de Acceso Vascular (VAQ).
Resultados: 91 pacientes, en su mayoría varones (70 %), con una edad media de 68,9 ± 16,2 años. La FAV era el acceso vascular actual en el 60,4 %. La HD domiciliaria se realizó en el 12,1 % de los pacientes y el 76 % la inició mediante CVC. En cuanto a los pacientes que han tenido tanto FAV como CVC, el 58 % prefiere la FAV y sólo el 26,5 % de los actuales portadores de CVC se sometería a una nueva FAV, sobre todo por miedo al dolor (52 %). La mayoría de las personas (72,5 %) declararon haber recibido suficiente información, sin diferencias entre ambos accesos. Los resultados del SF12 no mostraron diferencias según el acceso. En cuanto al VAQ, los pacientes con AVF estaban más satisfechos con el aspecto social y las complicaciones.
Conclusión: los pacientes con FAV tuvieron mejores resultados en comparación con los que utilizaron CVC en cuanto a complicaciones y aspectos sociales, sin deberse a un peor estado general de la calidad de vida. La mayoría de los pacientes con CVC se niegan a someterse a una nueva FAV por miedo al dolor de la punción.

Palabras clave: calidad de vida, fistula arteriovenosa, catéter venoso central, hemodiálisis, hemodiálisis domiciliaria, cuidado.

Introduction

Chronic kidney disease (CKD) is defined as a group of heterogeneous diseases affecting renal structure and function, with great variability in clinical expression. It is estimated that in Spain, approximately 10 % of the adult population suffers from some degree of CKD, requiring renal replacement therapy (RRT) in the terminal phase (stage 5) [1, 2]. Regarding patients requiring RRT, 52.4 % receive renal transplants, 42.2 % hemodialysis (HD) and 5.45 %, peritoneal dialysis (PD) [3].

Vascular access for HD is essential for renal patients, due to its associated morbidity and mortality, and its impact on the quality of life. The importance of vascular access is so crucial that there are multidisciplinary clinical guidelines for the correct assessment of patients to whom is instructed an arteriovenous fistula (AVF), pre-and post-surgical care, and the quality parameters of good vascular access [4].

It has been established that AVF is the preferred access, due to its lower risk of complications, lower need of interventions, greater long-term patency, and better patient survival. Nevertheless, there are several studies evaluating objective aspects of a central venous catheter (CVC) that inform patients with low life expectancy about how vascular access may provide advantages due to its simplicity, immediate onset of use and low complication rate [5]. Despite this, there is little information on the quality of life of HD patients concerning the vascular access chosen [6, 7]. The aim of the present study is to determine the patients' quality of life based on the vascular access used.

Methods

Study design: A cross-sectional study including patients treated with HD from a hospital, home HD units and a satellite center, attached to the hospital, which agreed to participate in the study.

Data collection: Epidemiological and clinical data of the patients included in the study were obtained from the hospital computer system.

The patient's overall quality of life was measured using the SF12 Health Survey, a questionnaire with 12 questions from the previously validated SF36 Health Survey, divided into physical and mental domains [8]. To study the level of patient satisfaction with vascular access, the VAQ questionnaire [6] was used, a questionnaire developed in Canada with high reliability and adequate internal consistency [9]. The questionnaire uses a Likert scale from 1

to 7, 7 being the highest level of dissatisfaction, and it also comprises four domains: general satisfaction, physical symptoms, social sphere and complications [9].

Statistical analysis: Statistical analysis was performed using IBM SPSS Statistics 24. A $p < 0.05$ was considered statistically significant. The Research Ethics Committee of the hospital approved the study.

Results

Ninety-one prevalent patients were included, mostly men (70 %), with a mean age of 68.9 ± 16.2 years (25-93 years range). The majority (61.5 %) came from the satellite center and only 12.1 % were on home HD. The 60.4 % were using AVF as vascular access and the rest a tunnelled CVC, with no differences in age or sex between the two groups. The 75.8 % started HD via CVC. Patients with AVF had been on HD for longer and the vascular access had been used for longer than in CVC patients (5.8 vs. 3 years). Patient characteristics are summarised in Table 1.

Table 1. General characteristics

	Total (n=91)	**AVF (n=55)**	**CVC (n=36)**
Age (years)	68.9 ± 16.2	70 ± 15.3	67.1± 17.5
Male	64 (70.3)	41 (74.5)	23 (63.9)
HD unit			
• *Hospital*	24 (26.4)	17 (30.9)	7 (19.4)
• *Satellite centre*	56 (61.5)	30 (54.5)	26 (72.2)
• *Home*	11 (12.1)	8 (14.5)	3 (8.3)
Time in HD (years)	4.6 ± 4.6	5.8 ± 5.2[1]	3 ± 2.9
No. sessions per week	3 (2-7)	3 (2-7)	3 (2-6)
Currently vascular access			
• *CVC*	36 (39.6)		
• *Native AVF*	47 (51.6)		
• *Buttonhole AVF*	7 (7.7)		
• *Prosthetic AVF*	1 (1.1)		
AVF in the dominant arm	14 (15.4)		
Time with currently vascular access (years)	3.7 ± 4.6	4.9 ± 5.4[1]	1.8 ± 2.1
Start HD with CVC	69 (75.8)		

Note: Data are shown as total number (percentage), mean and standard deviation or median (range).
HD: hemodialysis; AVF: arteriovenous fistula; CVC: central venous catheter.
[1]$p < 0.05$ AVF vs. CVC
Source: The authors

Concerning patients who had had both AVF and CVC, 58 % preferred AVF, this preference is higher in males than females (88.9 % vs. 61.1 %, $p = 0.017$) and 73.5 % of patients currently using CVC did not want to have a new AVF. Table 2 shows the reasons reported by patients for not undergoing AVF, the main reason being fear of pain (52 %).

Table 2. Reasons why patients with CVCs (25) did not want to have an AVF

Reason	Total (percentage)
Fear/Pain related to further procedures	13 (52)
Contraindication	6 (24)
Aesthetic	3 (12)
Performed and functioning AVF not punctured due to pain	3 (12)

Source: The authors

Regarding the information received about vascular access, its types, and characteristics, 72.5 % of patients reported having received sufficient information, with no statistically significant differences about the type of vascular access used. Although the use of CVC could have been due to the unscheduled beginning in HD, we found no differences in the information received between patients who started the technique with CVC or AVF (Table 3).

Table 3. Information received according to current vascular access and at the start of the technique

	CVC *n=36*	**FAV** *n=55*	**p**
Received sufficient information	25 (69.4)	41 (74.5)	0,56
	Start with CVC *n=69*	**Start with FAV** *n=22*	**p**
Received sufficient information	49 (71)	17 (77.3)	0,75

Note: Data are shown as total number (percentage).
AVF: arteriovenous fistula; CVC: central venous catheter.
Source: The authors

The results of the SF12 quality of life questionnaire showed no significant differences between patients with AVF or CVC (Table 4). Also, no significant differences were found between patients treated in the center/hospital or at home.

Regarding the VAQ questionnaire, patients with AVF were more satisfied in social aspects (p = 0.036) and in terms of complications (p = 0.006), compared to those with CVC, with no differences in relation to physical aspects (Table 4). Additionally, patients with AVF in their dominant arm were more satisfied (1.2±0.3) than those with AVF in the non-dominant arm (2.1±1.3) (p = 0.0001). No differences were found concerning the origin of the patient (center/hospital or home).

Looking at each of the questions in the VAQ, we observed that 96.3 % of patients with AVF reported being very satisfied with the hygiene aspect compared to 52.8 % of patients with CVC (p= 0.0001), which may justify the differences in the social sphere. On the other

Table 4. Results of the SF12 and VAQ questionnaire according to vascular access

Questionnaire SF12	**Vascular access**		**p**
	CVC (n=36)	AVF (n=55)	
Physical domain	39.2 ± 9.9	40.7 ± 11.4	0,55
Mental domain	50.4 ± 11.4	49.8 ± 10.4	0,83
Questionnaire VAQ	**Vascular access**		
Mean	2.4 ± 0.8	2.1 ± 0.8	0,15
Physical domain	1.6 ± 1.1	2.1 ± 1.2	0,053
Mental domain	2.4 ± 1.3	1.8 ± 1.2	0,036
Complication domain	2.4 ± 1.1	1.8 ± 0.9	0,006

Notes: Data are shown as mean ± standard deviation.
AVF: arteriovenous fistula; CVC: central venous catheter.
Source: The authors

hand, 16.7 % of patients with CVC reported low satisfaction with the difficulty of caring for the vascular access, compared to 3.6 % of patients with AVF (p= 0.042), which may explain the differences with complications. Although overall there were no significant differences in the physical aspect according to access, when studying each of the questions and categorising them into high or low satisfaction, and omitting patients with no opinion, patients with AVF had 9.7 times higher relative risk (1.2-78.2, p = 0.012) of being dissatisfied with their vascular access, in terms of bleeding problems.

Moreover, we found a weak correlation (r: -0.255, p = 0.017) between VAQ social outcomes and patient age. This correlation was not observed in neither the physical domain nor the complication domain.

On the other hand, there were differences according to sex. Specifically, in question no. 12 (concerns about being hospitalized because of problems with my access) of the VAQ, 15.4 % of women compared to 6.6 % of men reported more dissatisfaction (p = 0.0001). Being female implies 5.6 times higher relative risk (1.2-26.3) of being dissatisfied (p = 0.04). In question 13 (concern about how long my vascular access would last) a similar situation occurred: 25.9 % of women performed worse than 11.5 % of men (p = 0.029), and being female was found to have 3.7 times (1.1-12.8) higher relative risk of being dissatisfied (p = 0.028).

Patients and attending nurses were asked what the main problem was regarding vascular access (Table 5). Most patients denied the existence of any problem, both in patients with AVF (55.6 %) and patients with CVC (45.7 %). The main problem in the AVF patients was painful punctures/stealing syndrome (20.4 %) and in the CVC group, showering difficulties (40 %). According to the nursing team, 73 % of patients with AVF had no problems, while 13.5 % consi-

dered clotting time to be the main problem. As for the CVC group, 52.8 % reported no problems while 37.9 % reported high venous pressures as the most prevalent problem.

Table 5. Main problem with vascular access according to the patient and nurse

Problem according to the patient	**FAV**	**CVC**
None	30 (55.6)	16 (45.7)
Toilet	0	14 (40)
Pain/Stealing Syndrome	11 (20.4)	3 (8.6)
Foot injuries/Sensitivity impairment	8 (14.8)	1 (2.9)
Aesthetic	5 (9.3)	1 (2.9)
Problem according to the nurse		
None	38 (73.1)	19 (52.8)
Prolonged clotting time	7 (13.5)	0
Difficult puncture	5 (9.6)	0
High venous pressures	1 (1.9)	14 (38.9)
Frequent infections/extrusion	0	2 (5.6)
Skin lesions	1 (1.9)	1 (2.8)

Note: Data are shown as total number (percentage).
AVF: arteriovenous fistula; CVC: central venous catheter.
Source: The authors.

Discussion

Previous studies have shown that CVC is often associated with worse outcomes in terms of quality of life and physical activity, compared to AVF [10, 11]. This has been confirmed in our series, where we found worse outcomes about complications and social outcomes in patients with CVC versus AVF.

Generally, the CVC is a temporary vascular access for patients who start unscheduled RRT, although in patients with low life expectancy it can be conceived as permanent vascular access [12]. This approach could imply that the results of previous studies on quality of life about vascular access, were influenced by an overall perception of poorer quality of life in those patients with CVC, given their low life expectancy. We did the SF12 questionnaire to all patients to prove that this approach did not influence the results about vascular access. In our group, no differences in quality of life were found between patients with CVC or AVF. Although patients with better results in the physical domain of the SF12 questionnaire had better results in the social and physical domain of the vascular access questionnaire, its correlation was weak.

It should be noted that no differences were found in the overall perception of quality of life between the center/hospital and home HD groups, in contrast to studies that relate home techniques to a better quality of life outcomes [13]. These differences may be due to the small group of home HD patients that were analysed in this study (n=10).

A higher incidence of complications related to vascular access has been described in patients on home HD, due to a higher number of cannulations [14]. However, in our study, no significant differences were found in terms of patient satisfaction in center/hospital or home HD, nor according to the type of access: native/prosthetic AVF or buttonhole AVF.

Several studies highlight the creation of vascular access as an inflection point in the patient's life, especially because of the feeling of .[a]bnormalityïn their body [10]. In our study, patients were more satisfied with complications the longer they had been on HD, which may be due to an adaptation mechanism of the renal patient condition they live with.

It should be pointed out that patients with AVF in the dominant arm were the most satisfied about social outcomes, in contrast to the assumption that the patient would prefer to have vascular access in the non-dominant hand, to interfere as little as possible with their daily activities and allow the use of their dominant arm during dialysis sessions. This result could be explained as those patients who have AVF in the dominant arm often have had previous AVF in the other arm and therefore, after several previous unsuccessful attempts, are more satisfied with their current AVF. This information should encourage us to individualise the preference of AVF placement, prioritising ultrasound data of adequate venous system [15] as opposed to the classic indication of preference for the non-dominant arm [4].

Concerning the social aspect of vascular access, younger patients were more dissatisfied than the rest. This is probably due to the fact that social aspects are more relevant to young patients, they were worried about issues that are not considered important in other age groups. As Field et al. study exposes, women are more concerned about being hospitalized because of problems with the access and how long the vascular access would last. These results could be influenced by the despondency reported by the women, as the aforementioned study exposes. Women may express dissatisfaction with vascular access, however what they actually convey is the negative impact of renal disease. Therefore, it would be relevant to focus on more exhaustive information processes in these groups.

As in the study by Field et al., about 30 % considered that they had not received sufficient information, with no differences according to the type of vascular access, so this aspect may

not have influenced the different results in terms of quality of life.

Although we have a “fistula first” policy and we encourage patients to have AVF and insist when it is necessary, almost 75 % of patients currently using CVC did not want to have a new AVF. In our study the main reason for not having an AVF was fear of puncture pain or fear of further procedures, in contrast to the previously mentioned study where the reason for it was aesthetics. Patient fear can be reduced by a complete, truthful, and participatory information process. Patient participation in decision-making is known to be crucial for the acceptance of procedures such as AVF creation [16]. It is also important to eliminate the "social contagion" [17], which can occur when the patient observes complicated punctures in other patients on the hemodialysis unit. It is key to have the "peer patient mentor"figure (18) who can offer a closer view to resolve any doubts.

Finally, we were able to confirm that the nursing responses were in accordance with the patient’s subjective perception, which was confirmed because the patients with AVF, who were the most satisfied about complications, were the ones who presented the fewest problems for the nurses.

Conclusion

There were differences in quality of life concerning the type of vascular access, with better results in social and complication outcomes in patients with AVF. These differences were not due to a worse overall quality of life status of patients with CVC, nor differences in the amount of information received by the two groups.

The majority of patients with CVCs refused to undergo AVF, mainly due to fear of puncture pain, which could be managed by providing more targeted information and by repeating this information regularly.

Acknowledgements

To the Statistics Service of Hospital Universitario La Paz for their help in the design and interpretation of the results.

Conflict of interest

The authors of this article declare no conflict of interest.

Funding sources

The authors of this article declare that they have not obtained any funding.

Author's contribution

All authors participated significantly in the work. CF and MM participated in conception, analysis and interpretation of data. CSA, MAN, RSV, MPM, IL, MO, GP, MAB participated examining the article.

References

[1] González AO, de Francisco A, Gayoso P, García F. Prevalence of chronic renal disease in Spain: Results of the EPIRCE study. Nefrologia. 2010;30(1):78–86. ↑Ver página 3

[2] Inker LA, Astor BC, Fox CH, Isakova T, Lash JP, Peralta CA, *et al.* KDOQI US commentary on the 2012 KDIGO clinical practice guideline for the evaluation and management of CKD. Am J Kidney Dis. 2014;63(5):713–35. https://doi.org/10.1053/j.ajkd.2014.01.416 ↑Ver página 3

[3] Sociedad española de nefrología y Código Riñón. La enfermedad renal Crónica en España. [Internet]. Sociedad española de Nefrología [cited 2022 May 25]. Available from: https://www.senefro.org/contents/webstructure/comunicacion/SEN_dossier_Enfermedad_Renal_Cro.pdf ↑Ver página 3

[4] Ibeas J, Roca-Tey R, Vallespín J, Moreno T, Moñux G, Martí-Monrós A, *et al.* Guía Clínica Española del Acceso Vascular para Hemodiálisis. Nefrología. 2017 Nov;37(1):1–191. https://doi.org/10.1016/j.nefro.2017.11.004 ↑Ver página 3, 8

[5] Hod T, Patibandla BK, Vin Y, Brown RS, Goldfarb-Rumyantzev AS. Arteriovenous fistula placement in the elderly: When is the optimal time? J Am Soc Nephrol. 2015 Feb;26(2):448–56. https://doi.org/10.1681/ASN.2013070740 ↑Ver página 3

[6] Field M, Khawaja AZ, Ellis J, Nieto T, Hodson J, Inston N. The vascular access questionnaire: A single centre UK experience. BMC Nephrol. 2019 Aug;20(1):299. https://doi.org/10.1186/s12882-019-1493-9 ↑Ver página 3

[7] Maqsood MH, Rubab K. Quality of Life of Patients Using the Hemodialysis Reliable Outflow (HeRO) Graft in Hemodialysis. Cureus. 2019 Jan;11(1):e3915. https://doi.org/10.7759/cureus.3915 ↑Ver página 3

[8] Gandek B, Ware JE, Aaronson NK, Apolone G, Bjorner JB, Brazier JE, *et al.* Cross-validation of item selection and scoring for the SF-12 Health Survey in nine countries: Results from the IQOLA Project. J Clin Epidemiol. 1998;51(11):1171–8. https://doi.org/10.1016/S0895-4356(98)00109-7 ↑Ver página 3

[9] Natalie Domenick Sridharan, Larry Fish, Lan Yu, Steven Weisbord, Manisha Jhamb, Michel S. Makaroun THY. The associations of hemodialysis access type and access satisfaction with health-related quality of life. J Vasc Surg. 2018;67(1): 229-235. https://doi.org/10.1016/j.jvs.2017.05.131 ↑Ver página 3, 4

[10] Casey JR, Hanson CS, Winkelmayer WC, Craig JC, Palmer S, Strippoli GFM, *et al.* Patients' perspectives on hemodialysis vascular access: A systematic review of qualitative studies. Am J Kidney Dis. 2014 Dec;64(6):937–53. https://doi.org/10.1053/j.ajkd.2014.06.024 ↑Ver página 7, 8

[11] Wasse H, Zhang R, Johansen KL, Kutner N. ESRD patients using permanent vascular access report greater physical activity compared with catheter users. Int Urol Nephrol. 2013 Feb;45(1):199–205. https://doi.org/10.1007/s11255-012-0137-9 ↑Ver página 7

[12] Viecelli AK, Lok CE. Hemodialysis vascular access in the elderly—getting it right. Kidney Int. 2019;95(1):38–49. https://doi.org/10.1016/j.kint.2018.09.016 ↑Ver página 7

[13] Watanabe Y, Ohno Y, Inoue T, Takane H, Okada H, Suzuki H. Home hemodialysis and conventional in-center hemodialysis in Japan: A comparison of health-related quality of life. Hemodial Int. 2014 Oct;18(S1):S32–8. https://doi.org/10.1111/hdi.12221 ↑Ver página 8

[14] Tomori K, Okada H. Home Hemodialysis: Benefits, Risks, and Barriers. In: Contributions to Nephrology. S. Karger AG; 2018. p. 178–83. https://doi.org/10.1159/000485719 ↑Ver página 8

[15] Lauvao LS, Ihnat DM, Goshima KR, Chavez LA, Gruessner AC, Mills JL. Vein diameter is the major predictor of fistula maturation. J Vasc Surg. 2009 Jun;49(6):1499–504. https://doi.org/10.1016/j.jvs.2009.02.018 ↑Ver página 8

[16] Xi W, Harwood L, Diamant MJ, Brown JB, Gallo K, Sontrop JM, *et al.* Patient attitudes towards the arteriovenous fistula: a qualitative study on vascular access decision making. Nephrol Dial Transplant. 2011;26(10):3302–8. https://doi.org/10.1093/ndt/gfr055 ↑Ver página 9

[17] Gillespie A, Fink EL, Gardiner HM, Gadegbeku CA, Reese PP, Obradovic Z. Does Whom Patients Sit Next to during Hemodialysis Affect Whether They Request a Living Donation? Kidney360. 2021;2(3):507–18. https://doi.org/10.34067/KID.0006682020 ↑Ver página 9

[18] Bennett PN, St. Clair Russell J, Atwal J, Brown L, Schiller B. Patient-to-patient peer mentor support in dialysis: Improving the patient experience. Semin Dial. 2018 Sep;31(5):455–61. https://doi.org/10.1111/sdi.12703 ↑Ver página