

Descripción de la calidad de vida y evaluación del nivel de conocimiento de un individuo con síndrome de Marfan sobre su enfermedad y el tipo de mutación que se presenta a nivel molecular

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Resumen

El síndrome de Marfan (SMF) es una enfermedad del sistema conectivo de tipo autosómica dominante de afección multiorgánica. Su buen pronóstico dependerá de un eficiente diagnóstico, tratamiento y al acoplamiento del paciente. El objetivo del proyecto se basa en la descripción de la calidad de vida y evaluación del nivel de conocimiento de un individuo con MFS sobre su enfermedad, sus manifestaciones, tratamientos y recomendaciones. Para ello se realizó un cuestionario, con puntos detallados, tales como: tiempo de diagnóstico, seguimiento por especialidades médicas, problemas de salud implicados por el síndrome, entre otras. Los resultados obtenidos en la encuesta muestran que el paciente, respecto a puntos generales de la enfermedad indicó como verdaderas 41% de las preguntas, un 27% de falsos, y no sabe o indica no tener conocimiento en un 32%, lo cual indica un poco de vacío en cuanto a conocimiento. Conclusión: el conocimiento de SMF permite llevar una buena calidad de vida ya que hay una mejor adaptación al tratamiento recibido; lo cual mejora la resolución del cuadro a presentar.

Palabras Claves: Síndrome de Marfan, dilatación aortica, tratamiento y seguimiento,

Abstract

Marfan syndrome (MFS) is an autosomal dominant connective system disease of a multiorgan condition. the good prognosis will depend on an efficient diagnosis, treatment and coupling of the patient. The objective of the project is based on the description of the quality of life and evaluation of the level of knowledge of an individual with SFM about his disease, its manifestations, treatments and recommendations. To do this, a questionnaire was carried out, with detailed points, such as: diagnostic time, follow-up by medical specialties, health problems implicated by the syndrome, among others. The results obtained in the survey show that the patient, regarding general points of the disease indicated as true 41% of the questions, 27% false, and does not know or indicates not having knowledge in 32%, which indicates a bit of a vacuum in terms of knowledge. Conclusion: Knowledge of MFS allows a good quality of life, since there is a better adaptation to the treatment received, which improves the resolution of the table to be presented.

Keywords: Marfan syndrome, aortic dilation, treatment and follow-up

Referencias Bibliográficas

1. Achelrod, Dmitrij; Blankart, Carl Rudolf; Linder, Roland; Von Kodolitsch, YsKert; Stargardt, Tom (2014) "The economic impact of Marfan syndrome: a nonexperimental, retrospective, population-based matched cohort study" Orphanet Journal of Rare Diseases. 9(90), 1-12. Arn et al., 1989
2. Arn, Pamela H.; Scherer, L. R.; Haller Jr, Alex; Pyeritz, Reed E. (1989) "Outcome of pectus excavatum in patients with Marfan syndrome and in the general population" The Journal of Pediatrics. 115(6), 954–958.
3. Baumgartner, H.; Bonhoeffer, P.; De Groot, N. ; De Haan, F.; Deanfield, J.; Galie, N.; ... Westby, J. (2010) "ESC Guidelines for the management of grown-up congenital heart disease (new version 2010)" European Heart Journal. 31(23), 2915-2957.

4. Bennett, P. (2002) *Introdução Clínica à Psicologia da Saúde*. Lisboa: Manuais Universitários. Climepsi Editores.
5. Bennett, Paul; Murphy, Simone (1999) *Psicologia e promoção da saúde*. Lisboa: Manuais Universitários. Climepsi Editores.
6. Costa, Miguel; López, Ernesto (1998) *Educación para la salud: Una estrategia para cambiar los estilos de vida*. Madrid: Ediciones Pirâmide
7. Davies, Ryan R.; Goldstein, Lee J.; Coady, Michael A.; Elefteriades, John A. (2002) "Yearly rupture or dissection rates for thoracic aortic aneurysms: simple prediction based on size" *The Annals of Thoracic Surgery*. 73(1), 17-27.
8. De Bie, Sylvia; De Paepe, Anne; Delvaux, Isabelle; Davies, Sally; Hennekam, Raoul (2004) "Marfan syndrome in Europe: A questionnaire study on patients perceptions" *Community Genetics*. 7(4), 216–225
9. De Paepe, Anne; Devereux, Richard B.; Dietz, Herry C.; Hennekam, Raoul; Pyeritz, Reed E. (1996) "Revised diagnostic criteria for the Marfan syndrome" *American Journal of Medical Genetics*. 62(4), 417–426
10. Dietz, Harry C.; Cutting, Carry R.; Pyeritz, Reed E.; Maslen, Cheryl L.; Sakai, Lynn; Corson, Glen M.; Puffenberger, Erik G.; Hamosh, Ada; Nanthakumar, Elizabeth J. ; Curristin, Sheila M. ; Stetten, Gail ; Meyers, Deborah A. ; Francomano, Clair A. (1991) "Marfan syndrome caused by a recurrent de novo missense mutation in the fibrillin gene" *Nature*. 352, 337–339
11. Engelfriet, Peter; Mulder, Barbara (2007) "Is there benefit of beta-blocking agents in the treatment of patients with the Marfan syndrome?" *International Journal of Cardiology*. 114(3), 300–302
12. Giarelli, Ellen; Bernhardt, Barbara A.; Mack, Rita; Pyeritz, Reed E. (2008) "Adolescents' transition to self-management of a chronic genetic disorder" *Qualitative Health Research*. 18(4), 441-457.

13. Giarelli, Ellen; Bernhardt, Barbara A.; Pyeritz, Reed E. (2010) "SelfSurveillance by Adolescents and Young Adults Transitioning to Self-Management of a Chronic Genetic Disorder" *Health Education & Behavior*. 37(1), 133-150
14. Groenink, M.; Lohuis, T.; Tijssen, J.; NaeV, M.; Hennekam, R.; van der Wall, E.; Mulder, B. (1999) "Survival and complication free survival in Marfan's syndrome: implications of current guidelines" *Heart*. 82, 499-504.
15. Groenink, Maarten; de Ross, Albert; Mulder, Barbara J.; Spaan, Jos A.; van der Wall, Ernst (1998) "Changes in aortic distensibility and pulse wave velocity assessed with magnetic resonance imaging following beta-blocker therapy in the Marfan syndrome" *The American Journal of Cardiology*. 82(2), 203-208
16. Hofman, Karen J.; Bernhardt, Barbara A.; Pyeritz, Reed E.; Opitz, John M.; Reynolds, James F. (1988) "Marfan syndrome: Neuropsychological aspects" *American Journal of Medical Genetics*. 31(2), 331-338
17. Jorde, Lynn B., Carey, John C.; Bamshad, Michael J.; White, Raymond (2010) *Genética Médica*. Rio de Janeiro: Elsevier
18. Judge, Daniel P.; Dietz, Harry C. (2005) "Marfan's syndrome" *The Lancet*. 366(9501), 1965-1976
19. Kole, Anna; Faurisson, Françoise (2009) *The Voice of 12,000 Patients*. Boulogne-Billancourt: EURORDIS
20. Loewenstein, Anat ; Barequet, Irina ; De Juan, Eugene Jr ; Maumenee ; Irene (2000) "Retinal detachment in Marfan Syndrome" *Retina*. 20(4), 58-63.

21. Loeys, B.; De Backer, J.; Van Acker, P.; Wettinck, K.; Pals, G.; Nuytinck, L.; Coucke, P.; De Paepe, A. (2004) "Comprehensive molecular screening of the FBN1 gene favors locus homogeneity of classical Marfan syndrome" *Human Mutation*. 24(2), 140-146.
22. Loeys, Bart ; Dietz, Harry ; Braverman, Alan ; Callewaert, Bert ; De Backer, Julie ; Devereux, Richard ; Hilhorst-Hofstee, Yvonne ; Jondeau, Guillaume ; Faivre, Laurence ; Milewicz, Dianna ; Pyeritz, Reed ; Sponseller, Paul ; Wordsworth, Paul ; De Paepe, Anne (2010) "The revised Ghent Nosology for the Marfan syndrome" *Journal of Medical Genetics*. 47(7), 476– 485.
23. Loeys, Bart; Nuytinck, Lieve; Delvaux, Isabelle; De Die, Sylvia; De Paepe, Anne (2001) "Genotype and Phenotype Analysis of 171 Patients Referred for Molecular Study of the Fibrillin-1 Gene FBN1 Because of Suspected Marfan Syndrome" *JAMA Internal Medicine*. 161(20), 2447–2454
24. Marfan, Antonin B. J. (1896) *Un cas de déformation congénitale des quarte membres, plus prononcée aux extrémités, caractérisée par l'allongement des os avec un certain degré d'amincissement*. Paris: Impr. Maretheux
25. Moons, Ju R.; Cho, Yong A.; Huh, June; Kang, I-Seok; Kim, Duk-Kyung (2016) "Structural equation modeling of the quality of life for patients with marfan syndrome" *Health and Quality of Life Outcomes*. 14(83), 1-9.
26. Moons, P.; De Volder, E.; Budts, W.; De Geest, S.; Elen, J.; Waeytens, K.; Gewillig, M. (2001) "What do adult patients with congenital heart disease know about their disease, treatment, and prevention of complications? A call for structured patient education" *Heart*. 86(1), 74-80
27. Murdoch, J. Lamont; Walker, Bryan A.; Halpern, Barry L.; Kuzma, Jan W.; Mckusick, Victor A. (1972) "Life Expectancy and Causes of Death in the Marfan Syndrome" *The New England Journal of Medicine*. 286(15), 804–808.
28. Ogden, Jane (2004) *Health Psychology: A Textbook*. Berkshire: Open University Press

29. Orphanet (2016) Prevalence and Incidence of Rare Diseases: Bibliographic Data. Paris: Orphanet Report Series
30. Peters, K. F.; Apse, K. A.; Blackford, A.; McHugh, B.; Michalic, D.; Biesecker, B. B. (2005) "Living with Marfan syndrome: coping with stigma" *Clinical Genetics*. 68(1), 6-14.
31. Peters, K. F.; Kong, F.; Horne, R.; Francomano, C. A.; Biesecker, B. B. (2001a) "Living with Marfan syndrome I. Perceptions of the condition" *Clinical Genetics*. 60, 273-282
32. Peters, K. F.; Horne, R.; Kong, F.; Francomano, C. A.; Biesecker, B. B. (2001b) "Living with Marfan syndrome II. Medication adherence and physical activity modification" *Clinical Genetics*. 60(4), 283-292.
33. Peters, K. F.; Kong, F.; Hanslo, M.; Biesecker, B. B. (2002) "Living with Marfan syndrome III. Quality of life and reproductive planning" *Clinical Genetics*. 62, 110-120.
34. Pyeritz, R. E. (2007) "Marfan syndrome and related disorders" in Rimoin, D.; Connor, J.; Pyeritz, Reed; Korf, B. (eds.) *Emery and Rimoin's principles and practice of medical genetics*. Philadelphia: Churchill Livingstone Elsevier, 3579-3624
35. Rand-Hendriksen, Svend; Johansen, Heidi; Semb, Svein O.; Geiran, Odd; Stanghelle, Johan K.; Finset, Arnstein (2010) "Health-related quality of life in Marfan syndrome: A cross-sectional study of Short Form 36 in 84 adults with a verified diagnosis" *Genetics in Medicine*. 12(8), 517-524.
36. Robinson, Peter N.; Godfrey, Maurice (2000) "The molecular genetics of Marfan syndrome and related microfibrilopathies" *Journal of Medical Genetics*. 37(1), 9-25

37. Salim, M. A.; Alpert, B. S. (2001) "Sports and Marfan Syndrome - awareness and early diagnosis can prevent sudden death" *The Physician and Sportsmedicine*. 29(5), 80-93
38. Schneider, Marcie B.; Davis, Jessica G.; Boxer, Robert A.; Fisher, Martin; Friedman, Stanford B. (1990) "Marfan Syndrome in Adolescents and Young Adults: Psychosocial Functioning and Knowledge". *Developmental and Behavioral Pediatrics*. 11(3), 122-127.
39. Shores, Jennifer; Berger, Kenneth R.; Murphy, Edmond; Pyeritz, Reed E. (1994) "Progression of Aortic Dilatation and the Benefit of Long-Term Beta-adrenergic blockade in Marfan's syndrome" *The New England Journal of Medicine*. 330, 1335– 1341.
40. Silverman, David.; Burton, Kevin; Gray, Jonathon; Bosner, Matthew; Kouchoukos, Nicholas; Roman, Mary; Boxer, Maureen; Devereux, Richard; Tsipouras, Petros (1995) "Life expectancy in the Marfan syndrome" *The American Journal of Cardiology*. 75(2), 157-160
41. Svensson, Lars; Kouchoukos, Nicholas; Miller, D. Craig; Bavaria, Joseph; Coselli, Joseph; Curi, Michael; Eggebrecht, Holger; Elefteriades, John; Erbel, Raimund; Gleason, Thomas; Lytle, Bruce; Mitchell, R. Scott; Nienaber, Christoph; Roselli, Eric; Safi, Hazim; Shemin, Richard; Sicard, Gregorio; Sundt, Thoralf; Szeto, Wilson; Wheatley, Grayson (2008) "Expert Consensus Document on the Treatment of Descending Thoracic Aortic Disease Using Endovascular Stent-grafts" *The Annals of Thoracic Surgery*. 85(1), S1–S41.
42. Van Tongerloo, A.; DePaepe, A. (1998) "Psychosocial adaptations in adolescents with Marfan syndrome: An exploratory study" *Journal of Medical Genetics*. 35, 405-409
43. Von Kodolitsch, Yskert; De Backer, Julie; Schuler, Helke; Bannas, Peter; Behzadi, Cyrus; Bernhardt, Alexander; Hillebrand, Mathyas; Fuisting, Bettine; Sheikhzadeh, Sara; Rybczynski, Meike; Kolbel, Tilo; Puschel, Klaus; Blankenberg, Stefan; Robinson, Peter (2015) "Perspectives on the revised Ghent criteria for the diagnosis of Marfan syndrome" *The Application of Clinical Genetics*. 8, 137–155

44. Cook JR, Ramirez F. Clinical, diagnostic, and therapeutic aspects of the Marfan syndrome. *Adv Exp Med Biol*. 2014. 802 (): 77-94. Disponible en: <https://www.ncbi.nlm.nih.gov/pubmed/24443022>.

45. Sánchez R. Enfermedad de Marfan: revisión clínico-terapéutica y guías de seguimiento. *Seminarios de la Fundación Española de Reumatología*. 2011; volumen 12 (número 4): 1112-1222. Disponible en: <https://www.elsevier.es/es-revista-seminarios-fundacion-espanola-reumatologia-274-articulo-enfermedad-marfan-revision-clinicoterapeutica-guias-S1577356611000832>.

46. Guglielmina Pepe, Betti Giusti, Elena Sticchi, Rosanna Abbate, Gian Franco Gensini y Stefano Nistri. *The Application of Clinical Genetics*; volumen 9 (): 55–65. Disponible en: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4869846/>

47. Pr Guillaume JONDEAU. Síndrome de Marfan. Marzo 2010. Disponible en: [https://www.orpha.net/consor/cgi-bin/Disease_Search.php?lng=ES&data_id=109&Disease_Disease_Search_diseasesGroup=marfan&Disease_Disease_Search_diseaseType=Pat&Disease\(s\)/group%20of%20diseases=Marfan-syndrome&title=Marfan-syndrome&search=Disease_Search_Simple](https://www.orpha.net/consor/cgi-bin/Disease_Search.php?lng=ES&data_id=109&Disease_Disease_Search_diseasesGroup=marfan&Disease_Disease_Search_diseaseType=Pat&Disease(s)/group%20of%20diseases=Marfan-syndrome&title=Marfan-syndrome&search=Disease_Search_Simple)

48. Minsalud. Colombia. Enfermedades huérfanas. Disponible en: <https://www.minsalud.gov.co/salud/publica/PENT/Paginas/enfermedades-huerfanas.aspx>

49. Universidad del Rosario. 2014. Disponible en: <https://es.scribd.com/document/407265284/328902563-Crea-Total-pdf>

50. Salik I, Rawla P. Marfan Syndrome. [Updated 2019 Feb 28]. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2019 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK537339/>.

51. Becerra-Muñoz, V. M., Gómez-Doblas, J. J., Porras-Martín, C., Such-Martínez, M., Crespo-Leiro, M. G., Barriales-Villa, R.,... Cabrera-Bueno, F. (2018). The importance of genotype-phenotype correlation in the clinical management of Marfan syndrome. *Orphanet Journal of Rare Diseases*, 13(1).

52. Cañadas, V., Vilacosta, I., Bruna, I., & Fuster, V. (2018). Marfan syndrome. Part 1: pathophysiology and diagnosis. *Nature Reviews Cardiology*, 7(5), 256–265.
53. Juez, D. (2019). Síndrome de Marfan. [online] *TheLancet.com*. Available at: [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(05\)63106-6.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(05)63106-6.pdf) [Accessed 5 Nov. 2019].
54. Reyes-Hernández, O., Palacios-Reyes, C., Chávez-Ocaña, S., Cortés-Malagón, E., Alonso-Themann, P., Ramos-Cano, V., Ramírez-Bello, J. and Sierra-Martínez, M. (2019). Skeletal manifestations of Marfan syndrome associated to heterozygous R2726W FBN1 variant: sibling case report and literature review.
55. Barriales-Villa, R., García-Giustiniani, D. and Monserrat, L. (2019). Genética del síndrome de Marfan. [online] Available at: <https://www.elsevier.es/es-revista-cardiocre-298-articulo-genetica-del-sindrome-marfan-S1889898X11000727> [Accessed 5 Nov. 2019].
56. Robbins. Elastina, fibrilina y fibras elásticas. En: *Patología Estructural y Funcional*. Cotran, Kumar y Collins. 6ª Ed. Madrid, McGraw-Hill Interamericana, 2016. Pág. 106.
57. El síndrome de Marfan – Enciclopedia Orphanet de la Discapacidad www.orpha.net/data/patho/Han/Int/es/Marfan_Es_es_HAN_ORPHA109.pdf | agosto de 2016 Dra. Gisela Teixidó Turà, cardióloga, Unidad del Síndrome de Marfan, Hospital Universitari General Vall d'Hebron, Barcelona (España), agosto de 2016
58. Edison Ricardo Espinoza Saquicela a * , Stefania del Cisne Serrano Olmedo b julio / dic. 2017 ENFERMEDAD AÓRTICA ASCENDENTE EN UN PACIENTE CON SÍNDROME DE MARFAN, *scielo* vol.3 no.2
59. Diagnóstico diferencial del síndrome de Marfan en un atleta de voleibol adolescente En t. *J. Cardiovasc. Sci.* vol.30 no.2 Rio de Janeiro Mar./Abr. 2017 *Revista Internacional de Ciencias Cardiovasculares*.

60. Juan G. Barrera, MD.(1); Camilo Espinel, MD.(1); Jaime Amarillo, MD.(1); Víctor R. Castillo, MD.(1); Antonio Figueredo, MD.(1); Javier Gentile, MD.(1); Walter Mosquera, MD.(1); Sebastián Balestrini, MD.(1); Leonardo Salazar, MD.(1); Adriana S. Murcia, MD.(1) , Endovascular treatment of an aneurysm of the descending aorta in an adolescent with Marfan syndrome , Rev. Colomb. Cardiol. vol.19 no.1 Bogota Jan./Feb. 2012

61. Daisy Venancio, Síndrome de marfan, Born and Grow vol.25 supl.1 Porto dez. 2016

62. Sadık Görkem Çevik 1 Muhammer Özgür Çevik 2 Ahmet Tuncer Özmen 3 Implante de lente intraocular de fixação iriana em crianças com ectopia lentis Arq. Bras. Oftalmol vol.80 no.2 São Paulo Mar./Abr. 2017

63. S Williams-Phillips 1 H Vaughn 1 Síndrome de Marfan: ¿presentación clínica con glaucoma congénito? West Indian med. j. vol.67 no.1 Mona ene./mar. Epub 2018 18 de julio de 2019

64. Willian Caetano RODRIGUES 1 Mário Francisco Real GABRIELLI1 Marina Reis OLIVEIRA 1 Ana Claudia Gabrielli PIVETA 2 Marisa Aparecida Cabrini GABRIELLI 1 Tratamiento quirúrgico de ortodoncia de un paciente con síndrome de Marfan y síndrome de apnea obstructiva del sueño: reporte de caso con 9 años de seguimiento RGO, Rev. Gaúch. Odontol. vol.67 Campinas 2019 Epub Oct 28, 2019

65. 10. Kelly Jr RE. Pectus excavatum:historical background, clinical picture, preoperative evaluation and criteria for operation. Semin Pediatr Surg. 2008;17:181-93.

66. Lesbo M, Tang M, Nielsen HH, Frøkiær J, Lundorf E, Pilegaard HK, et al. Compromised cardiac function in exercising teenagers with pectus excavatum. Interact Cardiovasc Thorac Surg. 2011;13:377-80.

67. María Elena Soto1, Roberto Cano2, C. Sergio Criaes3, Leonel Avendaño4, Nilda Espínola4, Carlos García5 Pectus excavatum y carinatum en el síndrome de

Marfan y síndromes similares: prevalencia e impacto clínico pulmonar y cardiovascular Gaceta Med Mex. 2018;154(Suppl 2): S67-S78.

68. alvarez palacios franklin santiago (2016) revisión bibliográfica y presentación de un caso:síndrome de marfán[online]. Revista de la facultad de ciencias medicas,universidad de cuenca.

69. Rand-Hendriksen, Svend; Johansen, Heidi; Semb, Svein O.; Geiran, Odd; Stanghelle, Johan K.; Finset, Arnstein (2010) "Health-related quality of life in Marfan syndrome: A cross-sectional study of Short Form 36 in 84 adults with a verified diagnosis" Genetics in Medicine. 12(8), 517–524.

70. Moons, P.; De Volder, E.; Budts, W.; De Geest, S.; Elen, J.; Waeytens, K.; Gewillig, M. (2001) "What do adult patients with congenital heart disease know about their disease, treatment, and prevention of complications? A call for structured patient education" Heart. 86(1), 74-80.

71. Moons, Ju R.; Cho, Yong A.; Huh, June; Kang, I-Seok; Kim, Duk-Kyung (2016) "Structural equation modeling of the quality of life for patients with marfan syndrome" Health and Quality of Life Outcomes. 14(83), 1-9.