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ORIGINAL ARTICLE

Quality of life of the post-stroke patient at the Pedro Borras Astorga Polyclinic

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ABSTRACT

Introduction: stroke is currently increasing rapidly worldwide, representing the third leading cause of death and significantly impacting patients' quality of life.
Objective: to assess the quality of life of post-stroke patients in Basic Working Group 1 of the Pedro Borrás Astorga University Polyclinic in Pinar del Río.
Methods: an observational, descriptive, cross-sectional study was conducted in 2024 on an intentional sample of 64 patients meeting selection criteria. Data were collected through medical record review and instrument application, and analyzed using descriptive statistical methods.
Results: the sample showed a male predominance (68,8 %) and a higher representation in the 65–69 age group (18,7 %), with most patients being White (62,5 %). Ischemic stroke was overwhelmingly predominant (90,6 %). The most frequent comorbidities were hypertension (95,3 %), smoking (28,1 %), and diabetes mellitus (26,6 %). According to self-perception, quality of life was moderately affected in 46,9 % and slightly affected in 32,8 % of patients. Dimensions of the ECVI-38 showed variable impairment, with higher scores in sociofamilial functioning (71,3) and common daily activities (61,1), and lower scores in cognition (48,0) and communication (48,7).
Conclusions: clinical and demographic aspects of patients and their quality of life were evaluated, highlighting its impairment. Findings guide therapeutic improvements and underscore the essential role of the family environment in post-stroke recovery.

Keywords: Stroke; Quality of Life; Nervous System Diseases; Stroke Rehabilitation.

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INTRODUCTION

The term "stroke" (ictus) is Latin and was used over 2,400 years ago by Hippocrates, the father of Medicine, who recognized and wrote about cerebral hemorrhage.(1) Until relatively recently, stroke or cerebral hemorrhage was commonly called "apoplexy" or "stroke" in Anglo-Saxon languages—a term derived from the Greek for "violent attack"—because patients suddenly experienced paralysis and a drastic, often permanent and fatal, decline in well-being. Synonymous terms include cerebrovascular accident, cerebrovascular attack, and cerebral vascular accident. (2)

Authors such as Angarica,(3) and Viruez,(4) have conceptualized stroke. The most widely accepted definition, used by the World Health Organization (WHO) and cited by Burgaya,(5) describes stroke as a "clinical syndrome, presumably of vascular origin, characterized by the rapid onset of focal neurological signs lasting more than 24 hours or leading to death."

Epidemiological studies on this disease are highly heterogeneous. In Europe, stroke incidence has been estimated at 180–200 per 100,000 inhabitants.(6) The condition is growing so rapidly that it has reached epidemic proportions, ranking as the third leading cause of death worldwide and in Latin America and the Caribbean, where annual incidence is estimated at 209 per 100,000 inhabitants aged 35 years or older.(7)

In Cuba, according to the National Health Statistical Yearbook, crude mortality rates from stroke were 125,5; 107,6; and 109,6 per 100,000 population in 2021, 2022, and 2023, respectively. Stroke-related mortality has increased nationally due to the extension of life expectancy—nearly 80 years for Cubans.(8,9) Data from the Provincial Directorate of Hygiene and Epidemiology of Pinar del Río show a similar trend: between July 1, 2020, and June 30, 2022, the municipality of Pinar del Río reported a stroke prevalence rate of 473,3 per 100,000 inhabitants—above the national average. Notably, Basic Working Group (GBT) No. 1 of the Pedro Borrás Astorga Polyclinic recorded a prevalence rate of 566,6 per 100,000 inhabitants during the same period. Experts emphasize the wide range of aspects affected in stroke survivors and their profound impact on quality of life (QoL), along with the critical role of the family environment in recovery. Over 50 % of survivors experience motor sequelae, and 30–35 % suffer cognitive impairments that limit their ability to perform activities of daily living.(10,11,12)

The WHO defines quality of life as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns." This is complemented by the concept of Health-Related Quality of Life (HRQoL), which incorporates factors such as disability, functional status, health perception, and socially conditioned opportunities shaped by disease or treatment. These definitions aim to clarify a complex concept to facilitate research. However, measuring self-perceived QoL is challenging, as no single instrument captures all its dimensions; consequently, numerous scales have been developed, though none comprehensively assess every aspect.(13)

QoL measurement instruments can be classified into generic and disease-specific types. Generic examples include the Sickness Impact Profile (SIP), EuroQOL, Nottingham Health Profile, and SF-36 Health Survey. Specific instruments include the Newcastle Stroke-Specific Quality of Life Measure (NEWSQOL, developed in 2004), SIP30-AI, and the Stroke-Specific Quality of Life Scale (SS-QOL).(14)

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The Stroke Quality of Life Scale (ECVI-38) is the first Spanish-language questionnaire designed to overcome the methodological and conceptual limitations of existing measures. It serves as a comprehensive tool for assessing health and quality of life in stroke patients.[15] Given the high incidence, elevated mortality, and status as a leading cause of disability, invalidity, and dementia in adults—alongside high hospital costs and profound impact on QoL—this study was conducted to evaluate the quality of life of post-stroke patients in Basic Working Group 1 of the Pedro Borrás Astorga University Polyclinic in Pinar del Río.

METHODS

An observational, descriptive, cross-sectional study was carried out between April and July 2024. The target population comprised 86 stroke patients identified in the Rehabilitation Unit of Basic Working Group (GBT) 1 of the Pedro Borrás Astorga University Polyclinic. A non-probabilistic, intentional sample of 64 patients was selected based on inclusion criteria (diagnosed with ischemic or hemorrhagic stroke, preserved decision-making capacity, and written informed consent) and exclusion criteria (diagnosis of transient ischemic attack or absence from the study area during data collection).

Individual and family health records were reviewed. A data collection form designed by the authors captured variables including age, sex, skin color, stroke type (ischemic/hemorrhagic), and associated conditions (hypertension, smoking, diabetes mellitus, epilepsy, ischemic heart disease, bronchial asthma).

Quality of life was assessed using the ECVI-38 scale, considering both the total score and individual domain scores: Physical Status (PS), Communication, Cognition, Emotions, Feelings, Basic Activities of Daily Living (BADL), Common Daily Activities (CDA), and Sociofamilial Functioning (SF). Overall QoL was classified as: unaffected (<25 points), slightly affected (25–49), moderately affected (50–75), or severely affected (>75).

Data were analyzed using absolute and relative (percentage) frequencies. Ethical principles were strictly observed: data accuracy was respected, information was used exclusively for research purposes, anonymity was guaranteed throughout data collection, and patient confidentiality was maintained for all clinical records and databases. The study was approved by the Scientific Council and the Research Ethics Committee.

RESULTS

The demographic profile of stroke patients (Table 1) showed a predominance of males (68,8 %) and the 65–69 age group (18,7 %). Most patients were White (62,5 %).

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Table 1. Sample distribution by demographic profile.

Variable		No.	%
Age	40-44	3	4,7
	45-49	1	1,6
	50-54	1	1,6
	55-59	7	10,9
	60-64	9	14,1
	65-69	15	23,4
	71-74	10	15,6
	75-79	12	18,7
	80-84	2	3,1
	≥ 85	4	6,3
Sex	Male	44	68,8
	Female	20	31,2
Skin Colour	Black	21	32,8
	White	40	62,5
	Mixed	3	4,7

In the analyzed sample, there was a marked predominance of ischemic stroke (90,6 %), as shown in Figure 1.

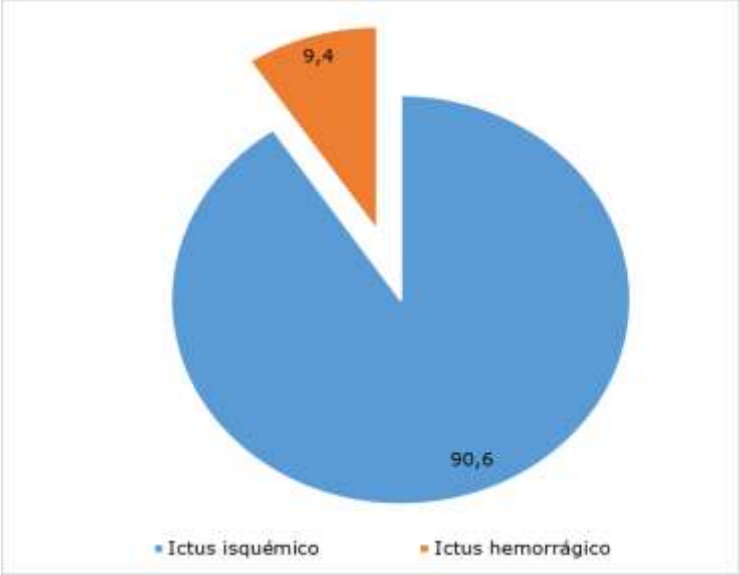

Fig. 1 Distribution of patients by stroke type.

Regarding associated comorbidities (Figure 2), hypertension was most prevalent (95,3 %), followed by smoking (28,1 %) and diabetes mellitus (26,6 %).

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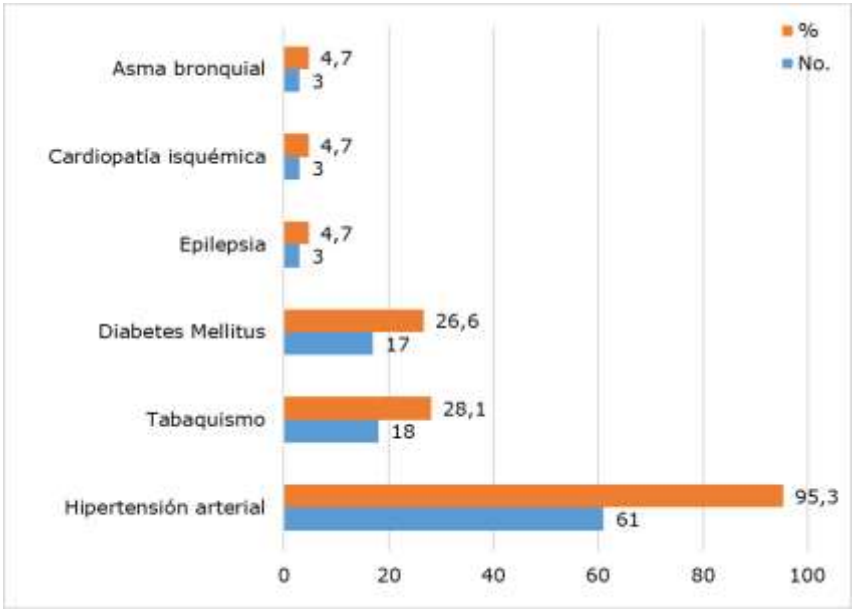

Fig. 2 Distribution of patients by associated diseases.

According to patients' self-perception, Figure 3 shows that most reported moderately affected quality of life (46,9 %) or slightly affected quality of life (32,8 %). Regarding the individual domains of the ECVI-38 scale, scores were as follows: Physical Status (52,9 points), Communication (48,7 points), Cognition (48,0 points), Emotions (52,8 points), Feelings (53,0 points), Basic Activities of Daily Living (53,8 points), Common Daily Activities (61,1 points), and Sociofamilial Functioning (71,3 points).

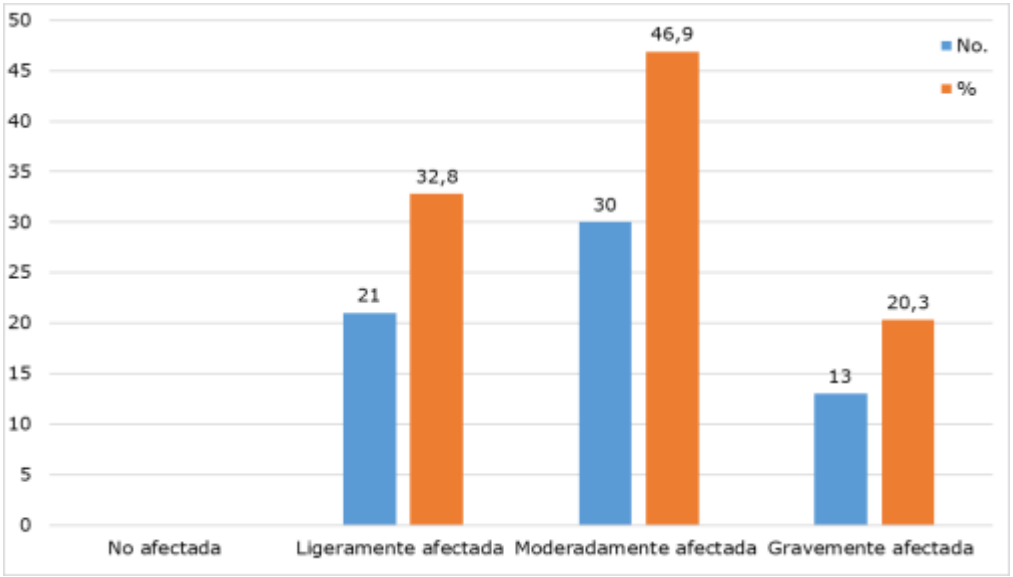

Fig. 3 Distribution of the sample by post-stroke quality of life.

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DISCUSSION

Non-communicable chronic diseases represent one of the greatest health and development challenges of the 21st century, being the leading global cause of death and disability. Among them, neurological disorders hold a prominent place.

Reviewing the literature regarding sex and age variables, various studies report no significant differences in stroke incidence by sex.[16]

However, the findings of this study contrast with those of Verdecia Ronda et al.,[17] who reported a higher prevalence among women (51,8 %). Conversely, our results align with studies by Pupo,[1] and Bernal. [18]

Regarding age, Benítez,[19] states that stroke is primarily a disease of aging, reflected in his findings where the group over 70 years accounted for 54,4 % of cases. He also notes that stroke incidence doubles with each decade after age 55. Similarly, Pinilla,[20] reports that stroke incidence rises notably after age 35 and triples in individuals over 85—findings consistent with existing literature.

A noteworthy finding in this study concerns skin color: White patients predominated. Similar results were reported by Sánchez,[21] and Martínez,[22] who also found White patients to be most affected by stroke.

However, Bernal,[18] indicates that Black individuals generally exhibit higher stroke incidence than White individuals. Moreover, ethnic groups such as Japanese populations show greater incidence of hemorrhagic stroke, and African American populations experience higher overall stroke rates compared to White populations.

There are two main stroke types: ischemic and hemorrhagic. Ischemic stroke typically results from arterial obstruction—often by a blood clot—while hemorrhagic stroke stems from bleeding in or around the brain. Our finding of predominant ischemic stroke (90,6 %) aligns with Planes,[23] who reported 63,3 % ischemic cases.

Ramos,[24] emphasizes that, after age, hypertension is the most well-established and documented risk factor for stroke, contributing significantly to annual global stroke mortality. Hypertensive individuals face a 3–4 times higher relative risk than normotensive individuals, with risk increasing proportionally with blood pressure levels—supporting our results showing 95,3 % hypertension prevalence.

Smoking nearly doubles stroke risk, with similar effects observed in passive smokers. According to Piloto, [25] smoking contributes to all stroke types, primarily by increasing fibrinogen levels. Nicotine triggers catecholamine release, enhances platelet aggregation, and causes lipid alterations. In her study, smoking was present in 87,7 % of atherothrombotic stroke cases.

It is crucial to understand not only the clinical dimension of stroke but also its impact on patients' daily lives. The heterogeneity in symptoms, severity, etiology, and recovery among stroke survivors complicates assessment, as many patients report significantly diminished quality of life. Thus, without a comprehensive evaluation of health-related quality of life, medical interventions may not yield full benefit—especially in stroke survivors.

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Multiple studies have examined post-stroke quality of life, varying in methodology, timing of assessment, and instruments used. Romero,[26] found that 48,2 % of patients did not perceive their quality of life as affected, and 37,2 % reported it as slightly affected—results that diverge from our findings.

Hernández, [27] in a 2020 Ecuadorian study, reported that 67,5 % of patients experienced some degree of quality-of-life impairment, with moderate impairment in 36,3 %. Mesa,[28] found a mean ECVI-38 score of 48,1 (moderately affected), consistent with our results. However, in her study, the most impaired domains were Basic Activities of Daily Living, Emotions, Feelings, and Physical Status—differing from our findings, where Sociofamilial Functioning and Common Daily Activities scored highest.

Interestingly, Sociofamilial Functioning emerged as the domain with the *best* (not worst) scores in our study (71,3 points), suggesting strong family support. This highlights the need for further research into the relationship between family medicine and the post-stroke familial environment. As the basic social nucleus and simplest expression of human community, the family shapes attitudes, knowledge, and behaviors that can positively or negatively influence health. Therefore, studying post-stroke quality of life within the framework of family medicine is highly relevant.[29]

Consequently, stroke affects not only the patient but also their close relatives and friends, who recognize that significant—and often profound—changes will occur in their lives. Motor, cognitive, and psychological sequelae can alter personality and make cohabitation challenging, amplifying the environmental stress already generated by the illness itself. How a family responds to a member's stroke can either strain or strengthen familial bonds. It is precisely in these moments of crisis that a family's true resilience, faith, and love are revealed.

CONCLUSIONS

This study determined the quality of life of patients in Basic Working Group 1 of the Pedro Borrás Astorga Polyclinic, revealing a predominance of moderate impairment and characterizing key epidemiological features of the sample. These results can inform and improve therapeutic approaches. The family environment emerges as the primary setting where the post-stroke patient undergoes essential changes toward comprehensive recovery.

BIBLIOGRAPHIC REFERENCES

1. Pupo Rodriguez L. Intervención educativa en pacientes con enfermedad cerebrovascular isquémica Hospital Guillermo Luis. Moa. 2019- 2020 [tesis]. Cuba: Universidad de Ciencias Médicas Moa Holguín; 2021 [citado 24/04/2024]. 71 p. Disponible en: https://tesis.hlg.sld.cu/index.php?P=FullRecord&ID=2142

2. Leyva-Tornés R, Romero-García L, Mayor-Guerra E, Páez-Candelaria Y, Gondres-Legró K, Bacardí-Zapata P. Caracterización de las complicaciones y la mortalidad en la enfermedad cerebrovascular isquémica aguda. Revista Finlay [Internet]. 2021 [citado 11/01/2025]; 11(3): 298-306. Disponible en: https://revfinlay.sld.cu/index.php/finlay/article/view/987

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(2025): e6678

3. Angarica-Aguilar Y, Salazar-Rodríguez J, Herrera-Arrebato D, Despaigne-Carrión E, Hechevarría-Heredia M, Reina-Rodríguez C. Caracterización de la enfermedad cerebrovascular isquémica en pacientes diabéticos del Hospital Universitario Clínico Quirúrgico General Calixto García. Revista Finlay [Internet]. 2023 [citado 27/04/2024]; 13(3): 273-281. Disponible en: https://revfinlay.sld.cu/index.php/finlay/article/view/1265

4. Viruez-Soto A, Chambi-Quilla G, Chambi-Quilla A, Quispe-Ticona N, Jiris-Quinteros J, Vera Carrasco O. Ictus en cuidado intensivo a muy alta altitud. Rev. Méd. La Paz [Internet]. 2023 [citado 27/04/2024]; 29(2): 30-37. Disponible en: http://www.scielo.org.bo/scielo.php?script=sci_arttext&pid=S1726-89582023000200030&lng=es.

5. Burgaya Subirana S, Macià Rieradevall E, Cabral Salvadores M, Ramos Calvo AM. Ictus: un reto diagnóstico. Rev Pediatr Aten Primaria [Internet]. 2021 Jun [citado 09/12/2024]; 23(90): 179-182. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1139-76322021000200012&lng=es.

6. Soto Á, Guillén-Grima F, Morales G, Muñoz S, Aguinaga-Ontoso I, Fuentes-Aspe R. Prevalencia e incidencia de ictus en Europa: revisión sistemática y metaanálisis. Anales Sis San Navarra [Internet]. 2022 Abr [citado 09/12/2024]; 45(1): e0979. Disponible en: https://recyt.fecyt.es/index.php/ASSN/article/view/88622/68511

7. Cagna Castillo DR, Salcedo Castillo AL. Prevalencia e incidencia de accidentes cerebrovasculares en Latinoamérica y el Caribe: revisión sistemática [Tesis]. Perú: Universidad Científica del Sur Facultad de Ciencias de la Salud carrera profesional de Medicina Humana; 2022 [citado 23/04/2024]. 100p. Disponible de: https://repositorio.cientifica.edu.pe/handle/20.500.12805/2294

8. Ministerio de Salud Pública. Dirección de Registros Médicos y Estadísticas de Salud. Anuario Estadístico de Salud 2022, 51 ª edición. [Internet]. La Habana; 2023 [citado 23/04/2024]. Disponible de: https://files.sld.cu/dne/files/2023/10/Anuario-Estadistico-de-Salud-2022-Ed-20231.pdf

9. Ministerio de Salud Pública. Dirección de Regiatros Médicos y Estadísticas de Salud. Anuario Estadístico de Salud [Internet]. La Habana; 2024 [citado 05/01/2025]. Disponible en: http://bvscuba.sld.cu/anuario-estadistico-de-cuba/

10. Fuentes-Pacheco N, Hernández-Rincón E, Barbosa-Ardila S, Cadavid-Dávila A. Aplicaciones móviles educativas en salud que surgieron durante el período 2020-2022 en Colombia. Revista Cubana de Información en Ciencias de la Salud [Internet]. 2023 [citado 17/08/2024]; 34. Disponible en: https://acimed.sld.cu/index.php/acimed/article/view/2328

11. Rodríguez Prunoto L, Cano de la Cuerda R. Aplicaciones móviles en el ictus: revisión sistemática. Rev. Neurología. [Internet]. 2018 [citado 20/08/2024]; 66(07): 213-229. Disponible de: https://dialnet.unirioja.es/servlet/articulo?codigo=6368162

12. Trimiño-Alcántara A, Fernández-Moreno JA, Martínez-Velázquez M, Savón Plutin R. Salud móvil: conceptos generales y potencialidades de implementación en Cuba. Rev. Inf. Cient. [Internet]. 2022 Oct [citado 20/08/2024]; 101(5). Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1028-99332022000500015&lng=es.

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(2025): e6678

13. Barrantes M. Factores asociados a la calidad de vida relacionada a la salud en pacientes con cardiopatía coronaria y diabetes mellitus. Rev Med Hered [Internet]. 2010 Jul [citado 11/01/2025]; 21(3): 118-127. Disponible en: http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1018-130X2010000300003&lng=es.

14. Aza Hernández A. Estudio longitudinal de la calidad de vida en personas con daño cerebral adquirido. [TESIS DOCTORAL]. España. Universidad de Salamanca, Instituto Universitario de Integración en la Comunidad (inico), Departamento de Personalidad, Evaluación y Tratamiento Psicológicos; 2021 [citado 11/01/2025]. 208p. Disponible en: https://gredos.usal.es/handle/10366/145802

15. Fernández Concepción O. Diseño de un instrumento para valorar la calidad de vida en supervivientes a un Ictus [Tesis doctoral]. Cuba: Ministerio De Salud Pública Instituto De Neurología Y Neurocirugía; 2009 [citado 23/04/2024]. 103 p. disponible de: https://tesis.sld.cu/index.php?P=FullRecord&ID=229

16. Lemus Fajardo NM, Linares Cánovas LP, Lazo Herrera LA, Linares Cánovas LB. Caracterización de adultos mayores con ictus. Acta Méd Centro [Internet]. 2019 [citado 09/12/2025]; 13(3): 304-1. Disponible en: https://revactamedicacentro.sld.cu/index.php/amc/article/view/985

17. Verdecia Ronda Y. Comportamiento de la Rehabilitación Física en pacientes con enfermedad cerebrovascular. Velasco. 2021 [Tesis]. Cuba: Universidad De Ciencias Médicas Holguín; 2021 [citado 03/10/2024]. 54 p. Disponible de: https://tesis.hlg.sld.cu/index.php?P=FullRecord&ID=1827

18. Bernal Cabrera D. Intervención educativa para prevenir las Enfermedades Cerebrovasculares en adultos mayores. Consultorio 23. Policlínico Levisa. 2020 [Tesis]. Cuba: Universidad de Ciencias Médicas Holguín; 2020 [citado 03/10/2024]. 40 p. Disponible de: https://tesis.hlg.sld.cu/index.php?P=FullRecord&ID=1842

19. Benítez Guzmán KM. "Enfermedad cerebrovascular y sus factores asociados en pacientes diagnosticados en el Hospital General Isidro Ayora de Loja" [Tesis]. Ecuador: UNIVERSIDAD NACIONAL DE LOJA FACULTAD DE SALUD HUMANA CARRERA DE MEDICINA Loja Ecuador; 2021 [citado 03/10/2024]. 75p. Disponible de: https://dspace.unl.edu.ec/jspui/bitstream/123456789/24118/1/KevinMartin_BenitezGuzman.pdf

20. Pinilla Pérez M, Beche Riambau E, Castro Ortega M. Los paradigmas biologicistas y médicosocial en pacientes con discapacidad. Arch Univ "Gen Calixto García" [Internet]. 2023 [citado 03/10/2024]; 11(1): 196-204. Disponible de: https://revcalixto.sld.cu/index.php/ahcg/article/view/1102

21. Sánchez De la Torre D, Hidalgo Ávila M, Fleites Torís M, Limas Ruíz K, Morales Durán Y. Factores de riesgo asociados a la enfermedad cerebrovascular en pacientes del consultorio 32 del Policlínico Norte de Ciego de Ávila. III Jornada Virtual Internacional de MEDICINA FAMILIAR [Internet]. 2024 [citado 19/01/2025]. 1-11p. Disponible en: https://mefavila.sld.cu/index.php/mefavila2024/2024/paper/viewFile/846/640

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(2025): e6678

22. Martínez Martínez BM, Blanco Aspiazu MÁ. Mortalidad temprana en pacientes con ictus isquémico. Rev Cubana Med Milit [Internet]. 2024 [citado 19/01/2025]; 53(2): e024028744. Disponible en: https://revmedmilitar.sld.cu/index.php/mil/article/view/28744

23. Planes Fajardo M, Díaz-Perera Fernández G, Alonso Martínez MI, Calzada Fajardo A. Caracterización de los pacientes con ictus en una unidad de cuidados intensivos. Rev. Finlay [Internet]. 2021 Jun [citado 19/01/2025]; 11(2): 174-181. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2221-24342021000200174&lng=es.

24. Ramos Fernández O, Quintana Cabrera Y, Rivera Alonso D, Castro Montesino D, Hernández Cáceres Y. Factores epidemiológicos asociados a los accidentes cerebrovasculares en el municipio San Juan y Martínez. Rev Ciencias Médicas [Internet]. 2020 [citado 19/01/2025]; 24(1): e4176. Disponible en: http://revcmpinar.sld.cu/index.php/publicaciones/article/view/4176

25. Piloto Cruz A, Suarez Rivero B, Belaunde Clausell A, Castro Jorge M. La enfermedad cerebrovascular y sus factores de riesgo. Rev Cub Med Mil [Internet]. 2020 Sep [citado 19/01/2025]; 49(3). Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0138-65572020000300009&lng=es.

26. Romero Hernández MD, Gil Alfaro I, Ovando Diego L. Características clínicas y calidad de vida de los pacientes tras un evento vascular cerebral. Rev. Mex. med. familiar [Internet]. 2023 Sep [citado 19/01/2025]; 10(3): 89-98. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2696-12962023000300002&lng=es.

27. Hernández E, Salazar J. Calidad de vida en pacientes con enfermedad cerebrovascular evaluados en un hospital venezolano. Rev Ecuat Neurol [Internet]. 2020 [citado 19/01/2025]; 29(2): 52–7. Disponible en: http://dx.doi.org/10.46997/revecuatneurol29200052

28. Mesa Barrera Y, Fernández Concepción O, Hernández Rodríguez TE, Parada Barroso Y. Calidad de vida en pacientes post-ictus: factores determinantes desde la fase aguda. Rev haban cienc méd [Internet]. 2016 Ago [citado 19/01/2025]; 15(4). Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1729-519X2016000400004&lng=es

29. Hernández E, Salazar J. Calidad de Vida en Pacientes Con Enfermedad Cerebrovascular Evaluados en un Hospital Venezolano. Rev. Ecuat. Neurol. [Internet]. 2020 [citado 20/01/2025]; 29(2): 52-57. Disponible en: https://revecuatneurol.com/wp-content/uploads/2020/11/2631-2581-rneuro-26-02-00052.pdf