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ORIGINAL ARTICLE

PRENATAL CARE FOR PREGNANT WOMEN DURING THE COVID-19 PANDEMIC IN HUANCAVELICA, PERU

ATENCIÓN PRENATAL EN GESTANTES DURANTE LA PANDEMIA COVID-19 EN HUANCAVELICA, PERÚ

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ABSTRACT

Objectives: To determine the characteristics of the prenatal care of pregnant women attended in the Ascension Micro network in the period 2019 and 2020. **Material and method:** Observational, retrospective, cross-sectional; the population 619 pregnant women, secondary data recorded in the obstetric VEA and the CNV were used. The report was downloaded in the Excel spreadsheet, and it was analyzed using descriptive statistics in SPSS. **Results:** Personal characteristics; the pregnant women in both periods are at the optimum reproductive age, are single and cohabiting, with a secondary education level, Ascension origin and most have SIS. APN features; in both periods the beginning of the ANC was in the 1st trimester, more than half have more than 6 ANC, administration of micronutrients, ultrasounds, incomplete home visits in both periods, the laboratory battery, the immune protection, the FIV, the birth plan was complete in the period before the pandemic and incomplete during the pandemic, the delivery was institutional in both periods in a higher percentage. **Conclusions:** Prenatal care is important to prevent future complications and in times of pandemic, integrated work is affected.

Key words: Characteristics, Pregnancy, COVID-19, Prenatal care, Pandemic (Fuente: MeSH, NLM)

RESUMEN

Objetivos: Determinar las características de la atención prenatal de las gestantes atendidas en la Micro red Ascensión en el periodo 2019 y 2020. **Material y método:** Observacional, retrospectivo, transversal; la población 619 gestantes, se utilizó datos secundarios registrados en el VEA obstétrico y el CNV. El reporte fue descargado en la planilla Excel, y se analizó mediante estadística descriptiva en el SPSS. **Resultados:** Características personales; las gestantes en ambos periodos se encuentran en la edad óptima de reproducción, son solteras y convivientes, con nivel educativo secundaria, procedencia Ascensión y la mayoría cuenta con SIS. Características de la atención prenatal (APN); en ambos periodos el inicio de la APN fue en el 1er trimestre, más de la mitad tienen más de 6 APN, administración de micronutrientes, ecografías, visitas domiciliarias incompletos en ambos periodos, la batería de laboratorio, la protección inmunitaria, el VIF, el plan de parto fue completos en el periodo antes de la pandemia e incompleto durante la pandemia, el parto fue institucional en ambos periodos en mayor porcentaje. **Conclusiones:** La atención prenatal es importante a fin de prevenir complicaciones futuras y en tiempos de pandemia, el trabajo integrado se ve afectado.

Palabras clave: Características, Embarazo, COVID-19, Atención prenatal, Pandemia (Fuente: DeCS, BIREME)

INTRODUCTION

The World Health Organization (WHO) declared COVID-19 an international public health problem, classifying it as a pandemic in March 2020, and the Peruvian government declared a national state of emergency on March 16, 2020, instituting measures to prevent viral dissemination, such as quarantine and social distancing (1). This led to changes in access to and care in health services, including prenatal care, among others, and these restrictions were reflected in a significant increase, not only in maternal morbidity and mortality, but also in general morbidity and mortality (2).

The purpose of prenatal control is to determine maternal and fetal health conditions, identify risk factors and educate the pregnant woman for the exercise of motherhood and parenting. Adequate prenatal care allows the application of a large number of measures aimed at determining and maintaining maternal-fetal health in pregnancy (3,4). These have been negatively affected as a result of the COVID-19 pandemic that is affecting the world, negatively impacting maternal health (5). Since March, when the first case of COVID-19 infection was diagnosed, Peru has gone back eight years in maternal mortality levels in 2020, after registering a total of 429 cases, representing a 42% rebound compared to 2019, due to the fact that the Peruvian State decided to close the first level of care for more than three months. spaces where a large number of prenatal care was carried out, nearly eight thousand first-level care centers in the country, where more than 80% of prenatal controls are carried out (6,7).

In the Huancavelica Region, prenatal care was affected by the pandemic since the proposed goal was not achieved, and it was lower than the period without a pandemic as we presented, pregnant women attended 86.6% in a pandemic and 114.8%, outside the pandemic, pregnant women with first control in the first trimester 58.3% and 55.6%, pregnant women with six controls 62.1% and 88.9%; pregnant woman with six controls with a complete laboratory analysis battery 44.8% and 88.9% without a pandemic (5). In view of this situation, the Huancavelica Regional Health Directorate, in order to continue with prenatal care, suggests continuing with daily monitoring by telephone of all pregnant women, making intensive use of information systems such as the epidemiological surveillance system in obstetrics "VEA Obstetrics", in order to identify danger signs in a timely manner and guarantee timely referral9. In this sense, our objective was to determine the characteristics of prenatal care for pregnant women cared for in the Ascension Micronetwork in the period 2019 to 2020.

MATERIAL AND METHODS

Type of study and design

Observational, retrospective, cross-sectional study.

Population

A total of 619 pregnant women treated in five primary health care facilities were evaluated: Ascension Health Center, Callqui Chico Health Post, Sacsamarca Health Post, Huachocolpa Health Post, Telapaccha Health Post and San Gerónimo Health Post belonging to the Ascension Micronetwork, Huancavelica Health Network, Huancavelica Regional Health Directorate, between 2019 and 2020, during the study period, the entire population was selected under the census method.

Variables

Personal characteristics were evaluated: age, marital status, level of education, origin (Ascension, San Gerónimo, Callqui Chico, Sacsamarca, Huachocolpa, Telapaccha), type of insurance (SIS, EsSalud or individual).

Characteristics of prenatal care: trimester of initiation of NPC (I, II and III trimester), number of APNs (less than or equal to 6, and greater than 6), Micronutrient administration (complete if you had 1 folic acid supplementation and at least 6 with ferrous sulfate, incomplete if you had less than 5 ferrous sulfate supplementations), Ultrasound control (complete if you had 3 ultrasounds, incomplete if you had fewer than 2 ultrasounds during pregnancy), Laboratory tests (complete if you had 2 laboratory tests, incomplete if you had less than one laboratory test, hemoglobin dosage (complete if you had 3 doses, incomplete if you had less than 2 doses), Immune protection (complete if you had 2 doses of DT and 1 of influenza,

incomplete if you had less than one dose of DT and influenza), screening for Domestic Violence and Child Abuse FIV (complete if you had 3 screenings, incomplete less than 2 screenings), birth plan (complete if it was filled in all three times, incomplete if it was filled in less than 2 times), home visits (complete if you had more than 4 visits, incomplete if you had fewer than 3 visits), childbirth care (institutional, home, others).

Techniques and instruments

An analysis of secondary data was applied, from information systems such as the epidemiological surveillance system in obstetrics "VEA Obstetric" and the Registry System of the Certificate of the Live Newborn "CNV", continuously registered by the obstetrics service in each health facility, who record in a spreadsheet, the information on care for pregnant women, which are then sent for consolidation to the C.S. Ascensión, and this information is sent to the Huancavelica Health Network.

Procedures

Authorization was requested from the Huancavelica Regional Health Directorate explaining the objective of the research work, once the authorization of the Ethics Committee was obtained, reports of the obstetric VEA and the CNV for the years 2019 and 2020 were obtained, then the record was made in an Excel template, there were no exclusion criteria, and the data analysis was carried out at the SPSS, throughout the research process the protection of the privacy and confidentiality of the data provided by the epidemiology office was respected.

Ethical aspects

The study was approved by the Regional Health Directorate of Huancavelica (LETTER No. 0364-2022/GOB. REG. HVCA/GRDS-DIRESA), which guaranteed the proper management of the ethical principles of beneficence, autonomy and justice, worked with codes for non-identification of pregnant women, as well as the database is kept in custody by researchers.

Data analysis

Distribution of frequencies and percentages will be presented according to the evaluation periods, as well as tables.

RESULTS

According to the records obtained from the obstetric VEA and the CNV, there were 491 pregnant women in 2019 and 128 pregnant women in 2020, who were treated in the Ascension Micro network.

Table 1 shows that of the total number of pregnant women attended in 2019 before the pandemic and 2020 during the pandemic, 63.5% and 72.7% of pregnant women are at the optimal age of reproduction from 20 to 34 years, with the percentage of pregnancies at extreme ages being minimal in both periods; likewise, in the period before the pandemic, 54.8% have single marital status and in the period of pandemic, 55.5% have marital status of cohabitants; in both periods, 50.5% and 46.1% have a secondary education degree, respectively; the majority having the Ascension S.P. as the health establishment of origin in both periods, in the same way in the period before the pandemic there is evidence of a minimum percentage assigned to the Telapaccha S.P. and in the pandemic period no pregnant women are registered; 94.5% and 95.3% of pregnant women are affiliated to the SIS in both periods, with the percentage of pregnant women who do not have some type of insurance being minimal.

Table 2 shows that 59.5% and 64.8% represent more than half of pregnant women who started their prenatal care (APN) in the first trimester of gestation in both periods; however, 53.2% of pregnant women cared for before the pandemic have less than six APNs compared to the pandemic period where 83.6% of pregnant women have more than six APNs; regarding micronutrient supplementation in both periods: 75.2% and 96.9% of pregnant women had folic acid and incomplete ferrous sulfate supplementation; Similarly, 84.7% and 96.1% of both periods have incomplete ultrasound control; in the period before the pandemic, less than half (49.9%) of pregnant women do not have their complete laboratory battery, which increased in the pandemic period, representing 80.5% of pregnant women with an incomplete laboratory battery; Hemoglobin dosage In the period before the

pandemic, more than 96% of pregnant women have their complete dosages, however, in the pandemic period, the majority (99.2%) of pregnant women do not have complete dosages; immunological protection in the period before the pandemic, 50.1% of pregnant women are protected and in the period of the pandemic more than 80% of pregnant women are not protected; likewise, FIV screening in the period before the pandemic, 98% of pregnant women have complete screening compared to pregnant women attended in the pandemic period, where more than 96% do not have their complete screening; Before the pandemic, more than half (50.3%) have a complete birth plan and in the pandemic period, 97.7% of pregnant women do not have a birth plan.

Home visits in the period before the pandemic, more than half (68.6%) of pregnant women do not have complete visits, and in the pandemic period the majority (99.2%) do not have home visits; Most of the pregnant women cared for before and during the pandemic had institutional births and a minimum percentage were at home.

DISCUSSION

Prenatal care, according to the WHO, is conceived as a platform from which important activities are carried out for the care of maternal fetal health, likewise this usual care provided during pregnancy, must be based on basic pillars such as taking into account the sociocultural context in which such care is offered, ensuring that the service is appropriate, accessible, and of high quality, and also allow personalized attention (9).

However, the pandemic caused by COVID 19 has caused the collapse of health systems worldwide, of which our country is no stranger, with the measures taken to mitigate the spread of the virus being the mandatory use of masks, social isolation, hand washing and a state of quarantine throughout the country. This resulted in the closure of outpatient clinics in all public and private health facilities, including prenatal care (10).

Table 1. Personal characteristics of pregnant women cared for in the Ascension Micro Network (Huancavelica) in the period 2019 and 2020

		2019		2020	
		n	%	n	%
Age	<=15 years	14	2,9	4	3,1
	16-19 years old	111	22,6	16	12,5
	20-34 years old	312	63,5	93	72,7
	>35 years old	54	11,0	15	11,7
State Civil	Married woman	19	3,9	7	5,5
	Cohabitant	203	41,3	71	55,5
	Single	269	54,8	50	39,1
Degree of Education	No studies	5	1,0	3	2,3
	Primary	106	21,6	26	20,3
	High school	248	50,5	59	46,1
	Non-university higher education	108	22,0	20	15,6
	Higher University	24	4,9	20	15,6
Origin	Ascension	340	69,2	90	70,3
	San Gerónimo	44	9,0	12	9,4
	Callqui Chico	32	6,5	9	7,0
	Sacsamarca	1	,2	2	1,6
	Huachocolpa	69	14,1	15	11,7
	Telapaccha	5	1,0	0	0,0
Type of insurance	SIS	464	94,5	122	95,3
	EsSalud	15	3,1	5	3,9
	Particular	3	,6	1	,8
	You don't have insurance	9	1,8	0	0
	Total	**491**	**100,0**	**128**	**100,0**

Table 2. Characteristics of prenatal care for pregnant women attended in the Ascension Micro Network (Huancavelica) in the period 2019 and 2020

		2019		2020	
		n	%	n	%
Trimester of Initiation of Prenatal Care	I Trimester (up to 13ff)	292	59,5	83	64,8
	II Trimester (14 - 27ff)	170	34,6	40	31,3
	III Trimester (28 - 40ff)	29	5,9	5	3,9
Number of antenatal care	>= 6 NPCs	261	53,2	21	16,4
	<= 6 NPCs	230	46,8	107	83,6
Micronutrient Management	Complete (6th Fe+1AF)	122	24,8	4	3,1
	Incomplete (=<5th Fe+=<1AC)	369	75,2	124	96,9
Ultrasound Control	Complete (3 ultrasounds)	75	15,3	5	3,9
	Incomplete (=<2 ultrasounds)	416	84,7	123	96,1
Laboratory Tests	Complete (BAL 2)	246	50,1	25	19,5
	Incomplete (BAl =<1)	245	49,9	103	80,5
Hemoglobin dosage.	Complete (3 dosages)	475	96,7	1	,8
	Incomplete (=<2 dosages)	16	3,3	127	99,2
Immune protection	Complete (2dt+1Influenza)	246	50,1	15	11,7
	Incomplete (< = 1dt + =<1 Influenza)	245	49,9	113	88,3
FIV Screening	Full (3VIF)	481	98,0	5	3,9
	Incomplete (=<2VIF)	10	2,0	123	96,1
Birth plan	Full (3PP)	247	50,3	3	2,3
	Incomplete=<2PP)	244	49,7	125	97,7
Visits Home	Full (>=4 visits)	154	31,4	1	,8
	Incomplete (< 3 visits)	337	68,6	127	99,2
Childbirth care	Institutional	406	82,7	101	78,9
	Home	7	1,4	0	0
	Other	78	15,9	27	21,1
	Total	**491**	**100,0**	**128**	**100,0**

The first risk factor in pregnancy is age, it is known that this variable can allow good fetal development or high-risk development that sometimes threatens the lives of both beings (11). Adolescent pregnancy is one that occurs during the mother's adolescence, defined by the World Health Organization (WHO) as the life span between 10 and 19 years of age (12).

Likewise, the International Federation of Obstetricians and Gynecologists (FIGO) defined advanced maternal age as that over 35 years of age (13). Currently, the Spanish Society of Gynecology and Obstetrics considers elderly mothers from 35 to 38 years of age (14). However, in our study, pregnant women who attended their APN are at an optimal reproductive age (20 to 34 years), which is a favorable indicator in health services.

Women's level of education has an important influence on their attitudes and practices related to reproductive health and behaviour, their attitudes towards ideal family size, family planning practice and domestic violence.

On the other hand, the level of education is positively associated with the socioeconomic situation15. By area of residence, women of childbearing age living in urban areas had a higher median number of years of education passed (10.8 years) than that achieved among residents of rural areas of the country (8.1 years) (15). In our study, it was evident that pregnant women reached a secondary education level, which is a favorable indicator for maternal and fetal care.

In Peru, access to health services is an important part of people's right to equal enjoyment of the right to health. Having health insurance ensures that women have other human rights related to their integrity are not violated and allows them to enjoy the highest possible level of physical and mental health. Women of childbearing age who had some health insurance (SIS or EsSalud) in 2020 reach more than 7 out of 10 (73.9%) of them, a higher proportion have Comprehensive Health Insurance (51.1%); while this percentage is lower in those affiliated to EsSalud (22.8%) (15), these data are

consistent with what was found in our study where more than 95% of pregnant women are affiliated to the SIS before and during the pandemic, with no substantial change.

Prenatal care is the comprehensive surveillance and evaluation of the pregnant woman and the fetus by the health professional to achieve the birth of a healthy newborn, without deterioration of the mother's health, in this context all pregnant women must comply with at least the minimum care package1, which consists of the APN should be started as early as possible before 14 weeks of gestation, and should be periodic, continuous and comprehensive, it is considered that a pregnant woman should receive at least 6 prenatal cares16; complete laboratory tests (at least 2 will be performed), ultrasound control one each trimester, the pregnant woman must receive two doses of tetanus vaccine and one dose of influenza vaccine during pregnancy, she must also have a folic acid supplantation and at least six deliveries of ferrous sulfate, the birth plan must be applied to 100% of pregnant women, starting with the first APN and generating home visits through interviews with the family and community through home visits, at least four visits in pregnant women and two in postpartum women (4,16). Similarly, in antenatal care visits, serious consideration should be given to conducting a clinical inquiry into the possible existence of intimate partner violence when assessing conditions that could be caused or aggravated by this type of violence, provided that there is the capacity to provide a supportive response. The application of the screening form should be carried out in one in each trimester of pregnancy (16,17). In this context, after the results found in our study, pregnant women attended their APN during the first trimester and had more than 6 APNs, regardless of the pandemic, so there are no differences in both periods (2019 and 2020); however, significant differences were evidenced in terms of compliance with the pregnant woman's comprehensive package, with greater compliance in the period before the pandemic and non-compliance in the pandemic period; thus the administration of micronutrients, ultrasounds, laboratory batteries, immune protection, FIV and birth plan, in 2019 more than 50% of pregnant women complied with this package, however in 2020 more than 80% did not comply with the aforementioned package, however home visits are incomplete in both periods; The pandemic process plays a determining role in the health of the population, which is reflected in the failure to comply with the comprehensive package of the pregnant woman during prenatal care.

Despite everything, the place and type of childbirth care are important to ensure the health of the mother and unborn child, as well as to determine the population's access to an obstetric emergency care service in case of any complication (15). The evolution of institutional childbirth shows that it has been increasing over the years, especially in rural areas, especially in this area since 2014, despite the fact that in the natural regions of the Jungle and the Sierra the lowest percentages of institutional childbirth are seen (87.3% and 92.2%, respectively), which is reflected in what was found in our study where more than 80% of births were institutional regardless of the context that is being experienced today.

CONCLUSION

Characteristics of antenatal care have been identified as important in order to prevent future complications and in times of pandemic, integrated work is affected.

BIBLIOGRAPHIC REFERENCES

1. Meza-Santibañez Luis, Novoa Rommy H., Torres-Osorio Juan, Jáuregui-Canchari Vladimir, Rodríguez-Hilario Noé, GuevaraRíos Enrique et al . Implementación de un modelo mixto de atención prenatal, presencial y virtual durante la pandemia COVID-19, en el Instituto Nacional Materno Perinatal en Lima, Perú. Rev. Peru. ginecol. obstet. [Internet]. 2021 Abr [citado 2022 Jun 11] ; 67(2): 00004. Disponible en: http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S2304-51322021000200004&lng=es. http://dx.doi.org/10.31403/rpgo.v67i2313
2. Gil Cipiran, F et al. La Morbilidad Materna Extrema y su importancia como indicador en Salud Materna: 2020. Bol Epidemiol SE 42 vol 29: MINSA. 379-413.
3. Ipia-Ordóñez NV, Ortega-Vallejo DF, Acosta-Mora PA, López-Lasso WA, Martínez-Rodríguez JE, Corrales-Zúñiga NC, et al.Impacto de las condiciones sociodemográficas sobre el control prenatal en Latinoamérica. Rev. Fac. Med. 2019;67(3):331-5. Spanish. doi: http://dx.doi.org/10.15446/revfacmed.v67n3.69536
4. MINSA. Norma técnica de Salud para la atención integral de la salud materna [Internet]. 2013. Disponible en: https://docs.bvsalud.org/biblioref/2019/04/964549/rm_827- 2013-minsa.pdf

5. Zuñiga CY. Efecto de la pandemia covid – 19 en la atención materna en el hospital de acobamba [Tesis de especialidad]. Huancavelica: Universidad Nacional de Huancavelica; 2020. Recuperado a partir de: http://repositorio.unh.edu.pe/handle/UNH/3648
6. Guevara Ríos E. Impacto de la pandemia en la salud materna en el Perú. Investigación Materno Perinatal [Internet]. 24 de mayo de 2021 [citado 12 de junio de 2022];10(1):7-8. Disponible en: https://investigacionmaternoperinatal.inmp.gob.pe/index.php/rpinmp/article/view/230
7. Emergencia desatendida: las muertes maternas aumentan en el Perú. [Internet]. 2021;. Disponible en: https://www.swissinfo.ch/spa/per%C3%BA-maternidad_per%C3%BA-retrocedi%C3%B3-en-2020-ocho-a%C3%B1os-en-los-niveles-de-mortalidad-materna/46496276
8. Recomendaciones a gestantes ante el COVID-19 [Internet]. Dirección regional de Salud Huancavelica. 2020 [citado 8 junio 2022]. Disponible en: https://www.regionhuancavelica.gob.pe/index.php/servicios/noticias/noticias-marzo-2020/2321-cov
9. Baena-Antequera F, Jurado-García E, Fer- nández-Carrasco FJ, Rodríguez-Díaz L, Gómez-Salgado J, Vázquez-Lara JM. Atención del embarazo durante la epidemia de COVID-19, ¿un impulso para el cambio? Rev Esp Salud Pública. 2020; 94: 5 noviembre e202011157. [http://hdl.handle.net/10481/64526]
10. Guevara Ríos, E. (2020). La atención prenatal en tiempos de COVID-19. Revista Peruana De Investigación Materno Perinatal, 9(3), 6–7. https://doi.org/10.33421/inmp.2020208
11. Fawed Reyes, O et alt (2016). Complicaciones Obstétricas en Adolescentes y Mujeres Adultas con o sin Factores de Riesgo Asociados, Honduras 2016.. Archivos de Medicina. ISSN 1698-9465. VOL. 12 No.4.4. https://doi.org/10.38231/1327
12. Organización mundial de la Salud (2014) El embarazo en la adolescencia.
13. Tipiani-Rodríguez O (2006) ¿ES la edad materna avanzada un factor de riesgo independiente para complicaciones materno-perinatales? Rev Per Ginecol Obstet 52: 89-99.
14. Hernández-Valls M, Enriquez-Safora O, Izquierdo-Rodríguez A, Rivas López J (2009) Comportamiento del embarazo en mujeres mayores de 40 años. Rev Cubana Obstet Ginecol 35
15. Instituto Nacional de Estadística e Informática. "Perú: Encuesta Demográfica y de Salud Familiar 2020 - Nacional y Departamental". Lima, 2020
16. MINSA. Guías Nacionales para la atención integral de la salud sexual y reproductiva, Dirección general de salud de las personas. [Internet]. 2004. Disponible en: http://bvs.minsa.gob.pe/local/dgsp/63_guiasnac.pdf
17. Dirección regional de Salud Huancavelica, Directiva sanitaria de procedimientos para la estandarización de las estrategias de seguimiento, monitoreo y análisis en el cuidado de la salud materna perinatal y neonatal en la región Huancavelica.

Contributions:

MJC: Conceptualization, Methodology, Validation, Research, Resources, Drafting of the original draft, Administration, Approval of the final version. **EVP:** Conceptualization, Methodology, Supervision, Data Analysis, Software, Drafting of the original draft, Approval of the final version. **OMG:** Conceptualization, Methodology, Data Analysis, Data Analysis, Oversight, Project Management, Original Draft Drafting, Final Version Approval.