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ORIGINAL ARTICLE

OBSTETRIC COMPLICATIONS DURING CHILDBIRTH IN ADOLESCENTS TREATED IN A HIGH ANDEAN HOSPITAL IN PERU

COMPLICACIONES OBSTÉTRICAS DURANTE EL PARTO EN ADOLESCENTES ATENDIDAS EN UN HOSPITAL ALTOANDINO DEL PERÚ

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ABSTRACT

Objectives: Determine obstetric complications during childbirth in adolescents treated at an Altoandino Hospital in 2022. **Material and method:** Descriptive, observational, retrospective and cross-sectional. The sample consisted of 39 adolescents who presented complications in the three periods of childbirth. A data collection form and the documentary analysis technique were used, and the data were processed with the statistical program IBM SPSS Statistics for Windows Version 28.0. **Results:** During the effacement and dilation period, complications included: 23.1% premature rupture of membranes, 20.5% prolonged labor, 15.4% preeclampsia, 10.3% cephalopelvic disproportion, 7.7% childbirth prolonged and 2.6% cephalopelvic disproportion. During the expulsion period, the complications observed were: 10.3% shoulder dystocia and tears, 5.1% problems with the umbilical cord and 2.6% shoulder dystocia and prolonged expulsion. Furthermore, 5.1% presented retention of placental remains during the delivery period. **Conclusion:** It was determined that complications occurred more frequently during the dilation and effacement period.

Key words: Obstetric complications, Childbirth, Adolescent (Fuente: MeSH, NLM)

RESUMEN

Objetivos: Determinar las complicaciones obstétricas durante el parto en adolescentes atendidas en un Hospital Altoandino en el 2022. **Material y método:** Descriptivo, observacional, retrospectivo y de corte transversal. La muestra consistió en 39 adolescentes que presentaron complicaciones en los tres periodos del parto. Se utilizó una ficha de recolección de datos y la técnica de análisis documental, y los datos fueron procesados con el programa estadístico IBM SPSS Statistics para Windows Versión 28.0. **Resultados:** Durante el periodo de borramiento y dilatación, las complicaciones incluyeron: 23,1% rotura prematura de membranas, 20,5% parto prolongado, 15,4% preeclampsia, 10,3% desproporción céfalo-pélvica, 7,7% parto prolongado y 2,6% desproporción céfalo-pélvica. Durante el periodo expulsivo, las complicaciones observadas fueron: 10,3% distocia de hombros y desgarros, 5,1% problemas con el cordón umbilical y 2,6% distocia de hombros y expulsión prolongada. Además, un 5,1% presentó retención de restos placentarios durante el periodo de alumbramiento. **Conclusión:** Se determinó que las complicaciones se presentaron con mayor frecuencia durante el periodo de dilatación y borramiento.

Palabras clave: Complicaciones obstétricas, Parto, Adolescente (Fuente: DeCS, BIREME)

INTRODUCTION

The Ministry of Health defines the adolescent stage as the period between 12 years and 17 years, 11 months and 29 days, a stage where the adolescent experiences and presents physical, social and psychological changes. (1)

Adolescent pregnancy is named after the age of the pregnant woman and is considered to be of high obstetric risk, so it can trigger a series of situations that can threaten the health of mother and child, and can influence the future due to the complications it entails, adding the impact it produces at a sociocultural and psychological level with a high cost on a personal level. educational, family and social. (2)

In a study carried out in Mexico, the complications that occurred during childbirth in adolescents were; early uterine atony with 28.6%; grade II perineal tear with 22.9% and grade I vaginal wall unseizure with 17.1%; premature rupture of membranes with 14%, on the other hand, it was found that the most frequent age in pregnant adolescents was 17 years with 37.1%. (3)

According to the 2021 Demographic and Family Health Survey (ENDES), 8.9% of adolescents in Peru were pregnant at some point. Of these, 6.6% were already mothers and 2.3% were pregnant for the first time. A higher incidence of adolescent pregnancies was observed in rural areas, with (15.6 %), (4)

On the other hand, the Regional Health Directorate of Huancavelica reported a 14% increase in the rate of teenage pregnancy in this region, a figure close to the national average. These pregnancies are considered high-risk due to the higher incidence of complications during pregnancy, childbirth and the postpartum period, also affecting the newborn. (5)

A study conducted in Huancavelica identified the following most frequent complications during childbirth in adolescents: early rupture of membranes (10.8%), threat and premature delivery (5.4%), placental abruption (2.7%), perineal tear (32.4%) and placental retention (21.6%). (6)

Consequently, the damages derived from adolescent pregnancy can seriously affect both the mother and the child, causing disabilities that negatively impact the quality of life. These disabilities are closely related to the lack or deficiency of medical care during childbirth. Many women who experience obstetric complications do not receive proper medical care in a timely manner to prevent serious illness or injury.

For this reason, we focus on investigating obstetric complications during adolescent childbirth, a critical stage for the well-being of both mother and child. Our study seeks to identify obstetric complications throughout the three periods of labor. This will allow authorities and health personnel to strengthen strategies for the prevention of adolescent pregnancy through timely interventions. In addition, it will strengthen the capacities of health personnel in the management of these complications, thus contributing to the reduction of the maternal and infant mortality rate in adolescents.

MATERIAL AND METHODS

Type of study and design

Observational, retrospective, cross-sectional study.

Population

39 adolescents under 17 years of age whose deliveries were registered at the Departmental Hospital of Huancavelica during 2022 were evaluated.

Variables

Obstetric complications were evaluated through the data collection instrument, which was divided into three parts; obstetric complications during the period of dilation and effacement (Record of Prolonged Labor, Record of Precipitated Delivery, Registry of Cephalic Pelvic Disproportion, Registry of Preeclampsia and Eclampsia, Record of Early Membrane Rupture), obstetric complications during the period of expulsion (Registry of problems with the umbilical cord, Registry of tears, Registry of injuries and traumas in the newborn, record of shoulder dystocia, record of prolonged expulsion), obstetric complications during the delivery period (record of hemorrhages, record of placental retention, record of retention of placental remains) and type of delivery according to gestational age and type of delivery in which it ended.

Techniques and instruments

A secondary data analysis was applied, through the review of the pregnant woman's medical history, in which all the events that occurred in labor in her periods of dilation, expulsion and delivery were recorded.

Procedures

Authorization was requested from the Departmental Hospital of Huancavelica explaining the objective of the research work, once the authorization of the Ethics Committee was obtained, the medical records were obtained for review and registration of the data collection form according to the exclusion criteria (adolescents without complications in childbirth, incomplete medical records), and the data analysis was carried out in 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 Teaching and Research Support Office of the Departmental Hospital of Huancavelica (REPORT No. 017-2023/GOB. REG-HVCA/HRZCV-HVCA/OADI), 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

Table 1 shows complications during the period of dilation and effacement. It was found that 20.5% of adolescents experienced prolonged labor, while 10.3% had pelvic cephalic disproportion. Preeclampsia affected 15.4% of participants, and premature rupture of membranes was observed in 23.1%. In addition, 7.7% suffered from prolonged labor along with pelvic cephalic disproportion, and 2.6% had premature rupture of membranes and prolonged labor. It was recorded that 20.5% of the adolescents did not present complications during this period.

Table 1. Obstetric complications during labor, effacement period, and dilation in adolescents treated at a High Andean Hospital in Peru, 2022

Obstetric complications during the period of dilation and effacement		*n*	%
Prolonged labor		8	20.5
Pelvic cephalic disproportion		4	10.3
Preeclampsia		6	15.4
Premature rupture of membranes (RPM)		9	23.1
Prolonged labor and Cephalopelvic Disproportion		3	7.7
Extended labor and RPM**		1	2.6
Not present		8	20.5
	Total	**39**	**100.0**

Table 2 details obstetric complications during the second stage of eviction. It was observed that 5.1% of adolescents experienced problems with the umbilical cord, while 10.3% suffered perineal tears. Shoulder dystocia was recorded in 10.3% of cases, and 2.6% had prolonged expulsion. In addition, 2.6% faced both shoulder dystocia and prolonged expulsive period. It was found that 69.9% of the adolescents did not experience complications during this period.

Table 2. Obstetric complications during labor, second stage of labor in adolescents treated at a High Andean Hospital in Peru, 2022

Obstetric complications during the second stage		*n*	%
Log Cord Issues		2	5.1
Tear Log		4	10.3
Shoulder Dystocia Log		4	10.3
Record of prolonged expulsion		1	2.6
Shoulder dystocia and prolonged expulsive period		1	2.6
Not present		27	69.2
	Total	**39**	**100.0**

Table 3 shows obstetric complications during the delivery period. It was observed that 5.1% of the adolescents had retention of placental remains, while 94.9% did not present complications during this period.

DISCUSSION

In our study, it was observed that during the period of dilation and effacement, premature rupture of membranes was the most prevalent complication, affecting 23.1% of adolescents.

These findings coincide with previous studies such as those of Santoyo et al. (6), Carranza et al. (8), Montoya (9), who also found high percentages of this complication. However, they differ from the results reported by Jurado et al (10), who recorded a lower incidence of premature rupture of membranes, possibly due to differences in the characteristics of the populations studied.

Prolonged labor occurred in 20.5% of the cases, similar to that found by Jurado et al. (10), although Guerra et al. (11) reported a higher incidence, attributed to a differentiated management of uterine contractions in their study.

Preeclampsia affected 15.4% of adolescents in our study, coinciding with previous findings that also showed low percentages of this complication in similar populations Guerra et al. (11). Cephalopelvic disproportion was recorded in 10.3% of cases, similar to that reported by Trujillo, et al (12), who found comparable incidences. In contrast, Guerra et al. (11) identified a higher prevalence of this complication, suggesting differences in the physical development of adolescents at birth.

During the second stage of death, perineal tears and shoulder dystocia were the most common complications, with a percentage of 10.3%, coinciding with previous studies such as those by Sánchez et al. (3) and Guerra et al. (11). The incidence of problems with the umbilical cord was 5.1%, similar to that found by Trujillo, et al. (12), possibly due to socio-cultural similarities and other related pathologies.

Finally, during the delivery period, 5.1% of the adolescents presented retention of placental remains. This incidence differs from previous studies such as that of Santoyo, et al (6), who reported higher rates, suggesting possible differences in uterine dynamics and placental adhesion among the populations studied. (16)

Table 3. Obstetric complications during labor, delivery period in adolescents treated at a High Andean Hospital in Peru, 2022

Obstetric complications during the delivery period		*n*	%
Log Cord Issues		2	5.1
Not present		37	94.9
	Total	**39**	**100.0**

CONCLUSION

In conclusion, it was determined that complications occurred more frequently during the period of dilation and effacement

BIBLIOGRAPHIC REFERENCES

1. MINSA. gob.pe. [Online].; 2010 [cited 2022 Septiembre 10. Available from: https://www.gob.pe/institucion/minsa/noticias/37385-minsa-actualiza-normas-para-atencion-integral-de-salud-de-adolescentes
2. León P, Minassian M, Borgoño R, Bustamente F. Embarazo Adolescente. Revista Pediatría Electrónica. 2008; 5(1): p. 42-48.
3. Cárdenas JD. Complicaciones obstétricas durante el parto de adolescentes con anemia gestacional atendidas en el Hospital Universitario de Guayaquil, enero a junio 2021. Tesis de Maestria. Milagro: Universidad Estatal de Milagro, Guayaquil; 2022.
4. Defensoría del Pueblo: situación actual de embarazo en adolescentes exige un mayor acceso a salud sexual y reproductiva y educación sexual integral. [Online].; 2022 [cited 2022 Septiembre 26. Available from: https://www.defensoria.gob.pe/
5. DIRESA. Embarazo adolescente. Huancavelica:, Huancavelica; 2018.
6. Santoyo, MM; García, BS. Complicaciones de gestantes adolescentes en el centro de salud de huando, 2021. Tesis. Huancavelica: Universidad Nacional de Huancavelica, Huancavelica; 2022.
7. Billy Williams MR. Marco metodologico. Segunda ed. Paredes Galvan AJ, editor. Lima: San Marcos; 2019.
8. Carranza KM, Recalde XE. Complicaciones durante la gestación y el parto según la edad en adolescentes de un centro de salud de Guayaquil, 2019-2021. Tesis de Maestria. Guayaquil: Universidad de la Cesar Vallejo, Guayaquil; 2022.
9. Montoya Zambrano, E M. Análisis Holístico de las Complicaciones Obstétricas durante el embarazo, parto y postparto en Adolescentes Ingresadas en el Hospital Básico de Borbón. Tesis de maestría. Esmeralda: Pontificia Universidad Católica del Ecuador, Esmeralda; 2020.
10. Jurado BM, Huincho JG. Complicaciones en gestantes adolescentes atendidas en el hospital de lircay durante el año 2017. Tesis posgrado. Huancavelica: universidad nacional de huancavelica, huancavelica; 2019.
11. Guerra-Untiveros TS. Complicaciones obstetricas en adolescentes atendias en el hospital regional docente materno infantil el Carmen, Huancayo 2019. Tesis. Huancavelica: Universidad Nacional Huancavelica, Junín; 2020.
12. Trujillo Ramos MA. Complicaciones más frecuentes durante el parto de adolescentes atendidas en Hospital la Caleta, Chimbote 2017. Tesis. Chimbote: Universidad Católica Los Ángeles Chimbote, Ancash; 2019.
13. Gonzales, J; Gonzáles, E; Fabre, E; Laílla , J M. Distocias del parto: del motor, del canal y objeto del parto. Sexta ed. Barcelona; 2013.
14. Perinatal INM. Guías de práctica y clínica y de procedimientos en obstetricia y perinatología. Segunda ed. Guevara E, Sanchez A, Luna AM, Ayala FD, Mascaro PA, Carranza CA, et al., editors. Lima: Instituto Nacional Materno Perinatal; 2018.
15. Ormeño Soto, K K. Complicaciones obstétricas durante el parto en adolescentes atendidas en el Hospital Santa María del Socorro de Ica, Perú, 2019. Tesis pregrado. Ica: Universidad Nacional "San Luis Gonzaga", Ica; 2021.
16. División de Prevención y Control de Enfermedades, Departamento de Ciclo Vital División de la Red, Departamento de Procesos Clínicos y Gestión, Departamento de Gestión de Cuidados. Sospecha de rotura uterina. In Protocolo de manejo de casos SARS-CoV-2 (COVID-19) en gestantes, puérperas y/o diadas. Chile; 2020. p. 186-188.

Contributions:

Rocío Ataypoma and Angela Diego: Conceptualization, Research, Methodology, Project Management, Resources, Writing–original draft, Writing–revision and editing, Approval of the final version. **Maritza Jorge:** Conceptualization, Methodology, Supervision, Writing–Original Draft, Writing–Revision and Editing.