Mayaguez Medical Center
Family Medicine Residency Program

Effect of 17-P Progesterone injection in pregnant women with history of premature birth, cervical insufficiency and PPROM

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INTRODUCTION

- Approximately 15 million babies are born prematurely every year.
- The rate of preterm birth is approximately 10.6%, ranging from 5 to 18% by country, and it is associated with 35.8% of infant death in the United States
- 17-P injections have been used in clinical trials since 2003 to prevent preterm birth.
- According to the Meis study, the 17-P therapy had a 33% reduction in the rate of preterm birth (N=310), but the PROLONG trial found no benefit (N=1,130).

OBJECTIVE

- This study aims to describe for the first time the outcome of a group of Puerto Rican pregnant women with a prior history of preterm birth treated with weekly progesterone injections.

METHODS

- This descriptive study is based on a record review of Puerto Rican patients from Dr. Ramirez Carrero's private practice who consented to 17-P treatment.
- Of 125 participants from 2012-2022, only 85 met inclusion criteria (Age≥21, prior history of preterm birth, PROM, or Cervical Insufficiency)
- Descriptive statistical analysis tools were used to describe the collected clinical data.

RESULTS

- The mean age of the study group was 28.4 years (Range = 21.0, 39.0; SD = 5.02).

Table 1: Clinical characteristics

	Mean	Median	SD
GA (weeks) at Tx initiation	18.2	17.0	3.1
17-P received doses	17.0	18.0	4.4
Lowest Prior PTB (weeks)	29.1	31.5	6.0
GA (weeks) at current delivery	35.4	36.0	3.9

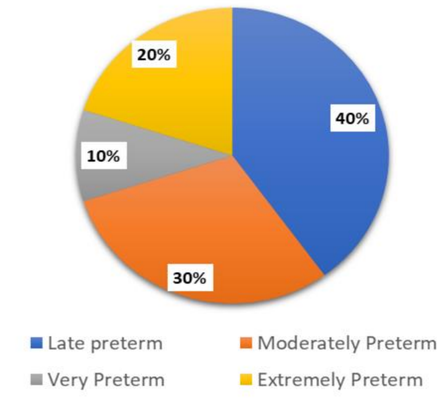
- When comparing the mean amount of WGA at the time of birth in previous pregnancies (**mean: 29.1 weeks**) to the mean amount of WGA at the time of delivery in the pregnancies treated with 17-P progesterone injections (**mean: 35.4 weeks**), we can appreciate an increase.

RESULTS

Table 2: Frequency of Preterm Birth ≤35

Preterm Birth	21	24.7%
Goal reached	64	75.3%

Figure 1: Percentage of Premature Births by Category after Tx with 17-P



- Within our 17-P Progesterone study group, we saw an incidence of preterm birth of 24.7% (95% CI: 16.0%,35.2%). There is no significant difference compared to the preterm rate in the study group of the Meis et al. and PROLONG study (17.4% and 16.0%, respectively).

CONCLUSION

- There seemed to be an increase in WGA at birth when using 17-P injections, compared to prior preterm birth.
- There is no significant difference in the incidence of preterm births after 17-P injections compared to the Meis et al. and PROLONG Study results.
- More studies are needed for the development of new treatment to prevent preterm birth.

LIMITATIONS

- Lack of control group as a comparison.
- Missing data in some medical records, which limited our sample size.
- Variables such as substance use, tobacco use, and chronic illnesses, among others, were not considered.

REFERENCES

IRB PROTOCOL NO: 2212126602