PRETERM LABOUR AND TOCOLYSIS

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PURPOSE OF STUDY

- Establishment of national protocols for the management and treatment of Preterm Labour, based on recent international recommendations.
- Establishment of national protocols for the follow up of pregnant women, in all levels of healthcare services in Albania, based on the material, financial and human resources.

This is are trospective study, which purpose is the comparison and evolution of treatment of PLinUHOG"Koco Gliozheni" from the years2004-2005,whenofficially was changed the definition of PL, based on data from the WHO and going forward. Initially, we need to explain some specifications in the obstetric-gynecologic hospitals in Albania and UHOG"Koco Gliozheni":

1. The absence of a national protocol for the treatment of PL.
2. We used more than one tocolityticin a patient during 2004-2005.
3. More than 1/3 of patientshospitalized in UHOG “K.Gliozheni”, came from other districts of the country, where a good part of them were treated liberally in advance with tocolytics.
4. The dosage of tocolytics was different from what the latest data provided by the literature, especially for ritodrineduring 2004-2005, this due to lack of electric syringes.
5. In 2011 nifedipine used as main tocolytic, is mainly dosed 4x1 or 6x1 tablets a day, without applying the emergency treatment that is recommended by literature.
6. In 2011 the neonatal mortality rate reached the lowest figure ever of 7.8%

1. ABSTRACT

Objectives. To compare the effectiveness of tocolysis. To prove weather the long term hospitalization and treatment improve the fetal outcome of birth.

Methods.

All pregnant women hospitalized with diagnosis of PL during 2004-2005 (study 1) and during 2011 (study 2) in UHOG "K. Gliozheni"

Study 1:

279 pregnant women from 24-34 weeks pregnant hospitalized with diagnosis of preterm labor and with intact membranes, and cervical modifications (dilatation, shortage), which underwent treatment with i.v. tocolytics according to two basic protocols of treatment, were studied. The protocol consisted of treatment with i.v. ritodrine (first group) and with i.v. MgSO4 (second group) during thefirst 24 hours. Some of patients after i.v. treatment continued to be treated with oral nifedipine or indometacine p.r.. All pregnant women with preterm premature rupture of membranes, fetal malformations, feto morto in utero, and febril conditions at the time of admission were not involved.

Data analysis was performed by SPSS 12.0 statistical package. Discrete data was presented in absolute value and in percentage. The values of $p<0.05$ were considered significant.

Study 2

119 pregnant women from 22-34 weeks pregnant, hospitalized with diagnosis of preterm labor and with intact membranes, and cervical modifications (dilatation, shortage). All pregnant women with preterm premature rupture of membranes, fetal malformations, feto morto in utero, multiple pregnancies, and febril conditions at the time of admission were not involved.

All women underwent treatment with oral tocolytics. The treatment for the first group was nifedipine and/or phloroglucinol, and the second group was treated neither with nifedipine nor with phloroglucinol, during the first 24 hours.

Data analysis was performed by SPSS 19.0 statistical package. Discrete data was presented in absolute value and in percentage. The values of $p\leq0.05$ were considered significant.

The continous data was presented in average value and standard deviation.

The difference between the two groups for the average size, were analyzed through the Student's test, while the difference between the two groups for the discrete variables, were identified through Hi square test.

The random connection between the dependent variable (born vs unborn) and the indipendent variables (gestational age, treatment with nifedipine, phloroglucinol, and treatment with both (nifedipine + phloroglucinol) were analyzed through the binary logistic regression technique.

Through the binary logistic regression technique we concluded that there is a statistical important connection between "preterm labour" and treatment with nifedipine (p=0.003), and between "preterm labour" and treatment with nifedipine+phloroglucinol (p=0.05).

Results

Study 1

Prevention of premature birth is closely related to the use of i.v. therapy (189 cases 67.8%) (p- 0.003).Treatment with i.v. ritodrine followed by nifedipine p.os (99 cases or 35.5%) prolongs significantly the pregnancy in comparison with MgSO4 (90 cases or 32.3%). Also it was seen no significant relationship in fetal outcome with hospitalization days and duration of tocolysis.

Study 2

The patients treated with nifedipine have three timesless probability to give give birth prematurely, compared to the ones that are not treated with nifedipine [OD: 0.26; CI95%: 0.18-0.85].

The patients treated with nifedipine and phloroglucinol have 24% less probability to give birth prematurely, compared to the ones that are not treated with nifedipineand phloroglucinol [OD: 0.88; CI95%: 0.11-0.99].

The patients treated with nifedipine (3.52±1.41), had a very short hospitalization days compared to the ones not treated with nifedipine (7.12±3.88). (Days in hospital p=0.039)

In 2011 the neonatal mortality rate reached the lowest figure ever of 7.8%

Conclusion

- Long-term hospitalisation and long-term use of tocolysis do not improve the fetal outcome.
- Treatment with nifedipine in the first 24 hours, decreases by three times the risk of preterm birth, and also reduces the hospitalization days.
- The treatment with nifedipine and phloroglucinol decreases 24% the risk of preterm birth, compared to the treatment with nifedipine only
- The effectiveness of nifedipine (with or without phloroglucinol) for the treatment of preterm birth, is confirmed from the low mortality rate during 2011 – 7.8%, which is a historical achievement of the albanian medicine.