The importance of auto declaration and biomarkers to determine alcohol drug consumption during pregnancy

Magri, Raquel *; Miguez Hugo **, Suárez, Héctor*, Hutson, Janine***, Menéndez, Adriana****, Parodi, Verónica* Bustos, Raúl*

* Hospital Pereyra Rossell, Montevideo, Uruguay

** CONICET, Buenos Aires, Argentina.

*** Sick Children´s Hospital,Toronto, Canadá

**** Hospital de Clínicas, Montevideo, Uruguay

ABSTRACT

This is a study to estimate the prevalence consumption of legal and illegal drugs during pregnancy on a selected population from Uruguay , through a post partum survey, consultation to secondary sources, diagnosis on perinatal situation, and biological diagnosis on meconium .

METHODOLOGY

The instrument was a face-to-face 1000 surveys performed within 48 hours after birth, using perinatal registries taken from hospital archives. The meconium samples were tested for alcohol (GCMS_GCFID), tobacco and illegal drugs(ELISA)

RESULTS

The survey shows a population with poor medical assistance or lacking it, with a high proportion of teenage mothers, poorly educated.

It also showed consumption during pregnancy in %, tobacco 41.3, alcohol. 36.8% , 16.3% tranquilizers, 68% caffeine (more than 400 mg/day), 1.4 illegal drugs .8.9% mothers didn't control their pregnancy.

34% of physicians controlling the pregnancies warned their patients about risks associated

with tobacco, 27%,alcohol and on 7% illegal drugs.

The consumption through meconium was in % , Alcohol 43,5.Tobacco (Cotinine)

51,8,Cocaine/base paste 2.5., amphetamines, 8.3%

All Newborns were 11 % Low birth weight and 14,8% had health problems . Newborns from

smoking mothers presented statistically lower birth weights.

LBW was associated to maternal BMI, tobacco consumption, newborn sex and FAEE ethyl

linolate in meconium.

CONCLUSIONS

Meconium biomarkers for drug determination is a valid and useful tool to validate prevalence drug consumption and to identify risk factors, where valid data is most important to determine newborns affected with FASD and other pathologies.

 Newborns born in these hospitals between April and June 2005 are at risk of heavy prenatal alcohol and tobacco exposure (consumption or second hand?), and it should lead to effective health prevention strategies.

Information given by the medical team was scarce .Drug effects on the fetus must be better known by health teams and intensively incorporated into both degree and graduate curricula and prenatal medical doctor appointments, as well as be known to other sectors of the community. An accessible network of rehab treatments for pregnant mothers should exist.