PREVALENCE OF IMMUNITY AGAINST INFECTION OF HEPATITIS A AND HEPATITIS B IN CHILDREN COCHABAMBA, BOLIVIA

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knowing the immune status against hepatitis A and hepatitis B in children Cochabamba, Bolivia and seroepidemiological association.
Infections of hepatitis are a viral public health problem worldwide each year about 1.4 million cases of hepatitis A are reported worldwide, that can cause mild to severe morbidity.

VHB is the most serious type of viral hepatitis, that can cause cirrhosis or hepatocellular cancer.

Each year VHB infected 2 billion people, of which more than 240 million have chronic hepatitis, more than 780,000 people die.
Lifelong protection is observed after VHA infection and in some cases also after VHB infection is observed protection lifelong.

The WHO (2012) recommended the integration of VHA and VHB vaccinations into the national immunization schedule for children 1 year old for VHA and VHB at birth.
The protocol involves three dose, 2, 4, and 6 months of age as part of a pentavalent vaccine.

WHO recommended lowering the age of administration of the VHB at birth.

Bolivia has not yet implemented this vaccination strategy.

Has low VHA and not vaccine against this.

Has low VHB and introduced universal vaccination against HBV in 2000.

The protocol involves three dose, 2, 4, and 6 months of age as part of a pentavalent vaccine.
MATERIALS AND METHODS

Study Design

- There was a cross-sectional study.
- Participation was voluntary.
- Informed consent obtained from parents.
- Children aged 5–16 years old.
- Cochabamba region of Bolivia.
- There was an ethical review board.
Setting

A cross-sectional study in March to April 2010 was conducted in Cochabamba. The health survey was entitled Bolkid.

Five municipalities were selected for the study.

Cochabamba has 55,631 km² and comprises 1,862,000 inhabitants.
MATERIALS AND METHODS

Sampling

- Target population inhabitants aged 5–16 years
- 424 subjects VHB with and without vaccine
- 436 subjects VHA

Sampling derived from public and private school

Calculations were performed with 95% confidence intervals (CI)

Subjects had to be selected randomly from the whole population
Materials and methods

Questionnaire BOLKID

- and then did the analysis of hepatitis in Barcelona
- And was made a blood draw
- A physical examination
- with socio-demographic variables, parental education levels, and housing conditions
- Ask were completed on the same day
Elisa test

VHA antibody IgG assay

CMIA

anti-HBs y anti-HBc assay system
The immunity was higher in children of 5-10 years (97%).

Was higher in 10-13 years (97.9%).

too whose parents had a low level of education (99, 45%).

living in rural areas (98.7%).

The overall prevalence 95.4 were immune

and spoke Quechua at home (99.5%).

had water delivered home by an oil sisterna (99.4 %).

lived urban development under (99.55%).
Results As to Hepatitis B virus

The prevalence of IgG anti-HBs

- The antibodies in the cohort of pre-universal vaccine was 5.8%
- The prevalence among cohort universal post-vaccine was 37.9%
- was higher in men (9.1%) and those living in the suburbs (9.7%)
- was higher in children who speak Quechua at home (51.0%)
- those living in the suburbs (53.9%), and those born in 2005 (72.7%).
- Neither cohort showed differences concerning education of parents
The prevalence of IgG anti-HBc was 1.1% among post-universal vaccine cohort and 1.2% among pre-universal vaccine cohorts.
The immune status against VHA was high, especially those lived in municipalities with low urban development.

The immune status against VHB was low, in spite of a decade of universal immunization, also was found a low long term humoral immunity in vaccinated children.
Thanks!