**BACKGROUND**

The HIV/AIDS epidemic has expelled dozens of countries, including those in the Western Hemisphere, from the pan-decisional Individualities. The European Center for Epidemiological Monitoring and Surveillance (EMSF) in Ukraine has the highest prevalence of HIV in the European region, with 31% of the adult population infected. The number of HIV-infected individuals in Ukraine is 2,300,000, and 0.7% are the mother’s hand infection.

**THE ROLE OF ART IN MTCT**

ART was initially used in 1996 for the prophylaxis of MTCT in the United States in accordance with Protocol 076, developed by the US Centers for Disease Control and Prevention (CDC). Protocol 076 calls for the prophylaxis of 300 mg of nucleosides, instead of 16-36 weeks of prophylaxis per delivery. The use of ART has demonstrated the efficacy of combined ART with the inclusion of highly-effective antiretroviral therapy (ART) during pregnancy. **1,2** The main aim of this approach is to decrease MTCT by reducing viral load in the mother’s hand infection. This leads to a decrease in the risk of transmission and transmission of maternal-to-infant vertical transmission.

**PROJECT DESCRIPTION**

From 1996 to 1999, 50 HIV-positive pregnant women were evaluated before and after their delivery. The women had been delivered in the Chornomorsk Maternity Hospital. The pregnant subjects were divided into two groups.

**Group 1** consists of 350 women who received ART according to the following regimen:

- **Group 1 A (79 women)** did not receive treatment during pregnancy
- **Group 1 B (184 women)** received a short-course regimen of ART (viramune) at the onset of labor or 4-6 hours before C-section, as well as in the first 48-72 hours of life. If the newborn was prescribed viramune syrup in the 1st 24 hours, it was administered intravenously intraperitoneally.

**Group 2** consists of 350 women who received ART according to the following regimen:

- **Group 2 A (79 women)** did not receive treatment during pregnancy
- **Group 2 B (184 women)** received a short-course regimen of ART (viramune) at the onset of labor or 4-6 hours before C-section, as well as in the first 48-72 hours of life. If the newborn was prescribed viramune syrup in the 1st 24 hours, it was administered intravenously intraperitoneally.

**RESULTS**

In comparison to the control group, ART reduced the rate of MTCT of HIV to 6.7%; this is 1.3 times lower than in the control group. The role played by elective C-section was dramatically higher in the control group (2.6%) than in the study group (0.7%).

**CONCLUSIONS**

The combination of prophylactic ART presented above can be recommended for countries with limited resources when it is not possible to carry out highly-effective ART during pregnancy, intraperitoneally, and for the newborn.

**REFERENCES**


In addition, this study demonstrates the role played by elective C-section in reducing the rate of MTCT of HIV. The role played by elective C-section was dramatically higher in the control group (2.6%) than in Group 2, while in Group 1, the role of elective C-section was only 0.7% in Group 1 A and 0.8% in Group 1 B, 1.3 times lower than in Group 2, while for women who did not receive elective C-section (Group 2), the rate of MTCT was 4.2 times lower than in Group 1, while for vaginal births, and 1.6 times lower than for vaginal births, and 1.6 times lower than for vaginal births. However, when performing a C-section, the risk of perinatal complications for the mother must be considered.

**Table 1.**

<table>
<thead>
<tr>
<th>Ill children*</th>
<th>12.9%</th>
<th>7.6%</th>
<th>10.5%</th>
<th>4.5%</th>
<th>12%</th>
<th>4.5%</th>
<th>31.6%</th>
<th>7.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ill children*</td>
<td>87.1%</td>
<td>92.4%</td>
<td>89.5%</td>
<td>95.5%</td>
<td>88%</td>
<td>95.5%</td>
<td>68.4%</td>
<td>92.4%</td>
</tr>
</tbody>
</table>

As the results of this assessment indicate, combined ART (viramune + nevirapine) for mother and fetus reduced the MTCT rate 4.2 times compared with the rate for women who did not receive treatment (Group 2).

**FIGURE 1.**

The role played by elective C-section was dramatically higher in the control group (2.6%) than in Group 2, while in Group 1, the rate of MTCT was 4.2 times lower than in Group 1, while for vaginal births, and 1.6 times lower than for vaginal births. However, when performing a C-section, the risk of perinatal complications for the mother must be considered.

**METHODS**

In this study, we designed the efficacy of a combined ART regimen in 300 mg of ART per 3 hours or more in the presence of HIV antibodies, at 12 and 18 months. The infant’s infection status was established after the results of medical, bacteriological, virological, serological, ultrasound, and pathological such as oligohydramnios was diagnosed in 33% of the cases. Hepatitis B and C virus carrier state was observed in 25% of the cases. Idus and 1.3 times lower than in Group 1. The rate of MTCT was 4.2 times lower than in Group 1, while for vaginal births, and 1.6 times lower than for vaginal births. However, when performing a C-section, the risk of perinatal complications for the mother must be considered.

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