

# HIV prevalence among pregnant women who were not tested during pregnancy (St.Petersburg, Russia)

E. Musatova, D. Niauri  
St. Petersburg State University, Obstetric and Gynecology Department.

In Russia total amount of HIV-positive people was more than 530 000 in the beginning of 2010, excluding children born from HIV-positive mothers. Over 2009 there was almost 6 000 new detected HIV-positive pregnant women.

Pregnant women in Russian Federation are recommended to contact with antenatal centre and make first HIV-test before second trimester of pregnancy. Antenatal centres provide dual HIV-testing for every pregnant woman (in first and third trimesters). Testing is obligatory and free. According recommendations from medical authorities all doctors involving in maternity care service should prescribe pregnant women to be tested. However there are some women who either do not visit centres at all or not take HIV-tests.

By 2010 more than 43 000 citizens of St. Petersburg had been infected, and about third of them women mostly in reproductive age. Despite there are a lot of IVDU among HIV-positive women, the majority of them declare the sexual transmittion as the most probable way of being infected.

**Objectives:** Determine HIV prevalence, clinical and demographical characteristics of women never tested for HIV during pregnancy.

**Methods:** The investigation was taken place in 2010 in clinical infectious hospital named after S. P. Botkin, St. Petersburg, Russian Federation. During that period 75 pregnant women without any HIV analyses results during gestation were hospitalized with different infectious diseases. They all were tested in first aid department with rapid test - Determine® (Abbott). All these women were in different trimesters of pregnancy. None of them were tested during that pregnancy nor reported themselves as HIV-positive before testing. Testing was accompanied with pre- and post-testing counseling. Positive results of rapid test for HIV were confirmed by ELISA and Western Blott. Statistic analyses were done with Microsoft Excel and SPSS 11.0.

**Results:** Among 75 women 21 (28.0%) HIV(+) cases were detected. None of the hospitalized women refused to be tested.

*Social and demographic characteristics of HIV-positive and HIV-negative pregnant women.*

	HIV(-) pregnant women (n=54)	%%	HIV(+) pregnant women (n=21)	%%	p
Age	26.0±5.6 yrs		26.7±4.5 yrs		ns
Citizens	29	53.7%	12	57.1%	ns
IVDU	8	14.8%	14	66.7%	p<0.001
Jobless	36	66.7%	20	95.2%	p<0.05

Among all women observed there were some at early term (13) of pregnancy, who hadn't yet consulted with maternity care services or hadn't yet made HIV-test. In the second trimester of gestation there were 14 women. None of them were HIV-infected, however.The majority of patients (48) were in the third trimester of pregnancy - all HIV-positive women among this group.

*Obstetrics and gynaecological characteristics.*

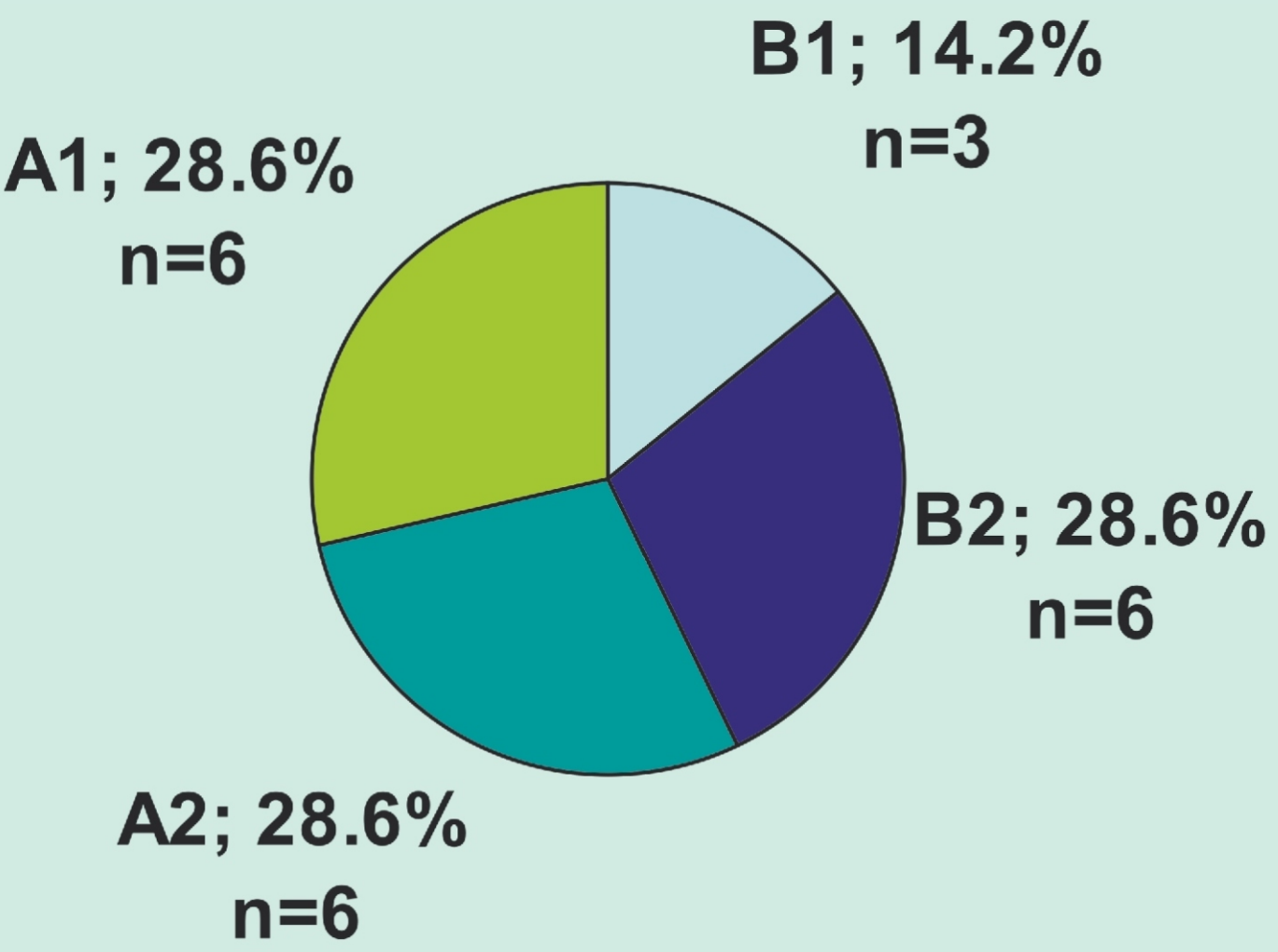
	HIV(-) pregnant women (n=54)	%%	HIV(+) pregnant women (n=21)	%%	p
Pregnancy:					
first	23	42.6%	3	14.3%	p<0.05
not-first	31	57.4%	18	85.6%	p<0.05
Delivery:					
first	35	64.8%	9	42.8%	p<0.05
not-first	19	35.2%	12	57.1%	p<0.05
Abortion (artificial or accidental) in anamnesis	32	59.3%	10	47.6%	ns
Contact with antenatal centre	23	42.6%	6	28.6%	ns
Incl. in I trimester	7	13.0%	0	-	ns

It is shown that there were 29 women who had contacted with antenatal services and had undoubtedly received prescriptions to make testing for HIV, but never done it. Only 1 of them was at early term, others had low adherence to medical recommendations. Among them 6 women were infected with HIV.

During hospitalization blood samples were taken from all HIV-positive women. Special analyses for CD4+ cells and viral load were performed.

Amount of CD4+ cells (cell/μl)	
Average	510,2±235,6
CD4+ min	206
CD4+ max	944

According to clinic and laboratory data different clinical categories were established at HIV-positive women (according CDC classification).



More than one third of all HIV-women had different clinical symptoms of health disorders connected with HIV-infection, but didn't have any treatment of them, though.

Clinical events during pregnancy	
Candidosis (pharyngeal)	2
Herpes virus	1
Candidosis (genital)	3
Recurrent bacterial infection	1
Condylomatosis	1
Total	8 (38.1%)

At HIV-negative women only 27 (56.3%) were in III trimester and just 7 (13%) had labours during that hospitalization. Meanwhile 19 (90.5%) HIV-positive women were delivered then. Labour activity were the only reason for them to apply for medical help.

The vast majority of HIV-positive women called for medical help, were taken to hospital and tested only after labour activity had already started therefore caesarian section could not be used as a way of vertical transmission prevention. Only 5 caesarian sections were done, because delivery had started before hospitalization. Nineteen children were born and 10 of them were abandoned in postpartum period.

**Conclusion:** Extremely high level of HIV prevalence among pregnant women without contact with antenatal centre were detected - 28.0%. Majority of HIV(+) pregnant women, who were detected in first aid department, had had no contact with medical service until III trimester or labour. In spite of using rapid tests, HIV detection after labour has started affects caesarean section as a prevention of mother-to-child transmission. That is necessary and important to improve models of searching pregnant women from the groups of high risk and increase their adherence to medical care.

[Contact author: createfick@mail.ru]