Pediatric Oncology in Russia - How we can share the experience

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Main stages of cooperative studies on cancer treatment optimization in Russia

1989 – 10-years survival rate of patients with ALL – 6.9%
1990 – the implementation of ALL, NHL, BFM and SIOP treatment protocols in Russia
1991 – the establishment of a cooperative Moscow-Berlin study group in Russia (MB group) for treatment of children and adolescents with acute lymphoblastic leukemia (ALL)
1992 – 2002 – the first randomised multicentral study in Russia: ALL-MB 91 protocol vs german protocol ALL-BFM 90
2002 – 2008 – multicentral controlled study on ALL treatment efficiency in Russia and Belarus: ALL-MB 2002
2008 – 2014 – international cooperative study with the participation of Russia, Belarus, Armenia and Uzbekistan (68 clinics)
2015 – new ALL treatment protocol including Kyrgyzstan
Moscow - Berlin (MB)

Good treatment results despite reduction of

- Myelotoxicity
- Supportive care
- Blood component transfusion
- Hospitalization
- Preventive CNS irradiation
- Dose of anthracyclines
- Costs

Avoidance of high-dose therapy

Cooperative Moscow-Berlin Group Development

RDKB: N=209
10 clinics: N=894
36 clinics: N=1873
51 clinics: N=4379
53 clinics: N=1230*


* The data since last 17 Months
ALL treatment optimization in Russia: treatment outcomes depending on the study

BFM-90; n=479, 312 in CCR, 68%±2%
MB-91; n=471, 318 in CCR, 68%±2%
MB-2002; n=1544, 1008 in CCR, 72%±1%
MB-2008; n=3589, 2992 in CCR, 82%±1%
The Main Reasons of Success

Reference of the diagnostic procedures, protocol treatment and supporative care in the central reference center in Moscow

Visiting of the participating hospitals regularly
to monitor the quality of treatment and documentation
to train the clinics on the protocol and supporative care

The clinics were very motivated and interested in joining to every next Trial

Because of interesting and claimed randomisation questions

The information exchange on a regular basis

The multicenter, controlled, population based, nationwide and well organized clinical studies are the most power weapon in our war against cancer
Main stages of HSCT in Russia

• 1992 – first autologous transplantation
• 1994 – first allogeneic transplantation; first HSCT in a patient with Fanconi anemia
• 1996 - first related cord blood transplantation
• 1998 – first unrelated HSCT in a pediatric patient
• 2001 – first unrelated cord blood transplantation
Allogeneic transplantation
AML, alternative donors, TCRαβ depletion

TCRαβ depletion – a universal platform for transplantation from alternative donors

Event-free survival:
Haplo vs Unrelated Transplantation in remission

EFS @2y 72% (95%CI 48-96)
EFS @2y 55% (95%CI 37-73)

Log rank p=0.42
**Acquired aplastic anemias**

**Allogeneic transplantation**

**Non-malignant disorders**

Transplantation for primary immunodeficiency diseases in our center 2012-2015

**Overall**

82% ± 5%

81 clinics in 25 countries 80%

10-years pOS

new 87% (95% CI 80-99)

classic 72% (95% CI 60-90)

log-rank p = 0.052
Neuroblastoma treatment outcomes

3-years EFS=62,5%

3-years OS=75,8%

Multicenter study for neuroblastoma
Auto-HSCT
Special therapy for first year of life children treatment
Prospects for further development of pediatric hematology/oncology in Russia

1. The establishment of the Russian national registry and monitoring service for cancer patients
2. Comprehensive participation of all Russian centers (departments) in cooperative studies as well as state and public and private support for these studies
3. The establishment of HSCT donor registry, increase in number of transplantation centers from 6 to 10, a twofold increase in HSCT (from 450 to 900 HSCTs in children per year)
6. The transfer of effective treatment protocols to the countries of Asia, Africa and Oceania
7. Solid Tumors!!!
Thank you for attention!

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