Association Between Both ABO and Rh Blood Groups and Hematological Malignances Among Children With Cancer In Armenia

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The Pediatric Cancer and Blood Disorders Center of Armenia, Hematology Center named after Prof. R. H. Yeolyan |SOHO 2022

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Background

Despite the higher incidence of hematological malignances their etiology is not clearly understood. Some works report that ABO blood groups can be considered as one of the factors playing an important role in the development of these diseases.

Objective

The investigation of the association between hematological malignances and both ABO and Rh blood groups among children with cancer.

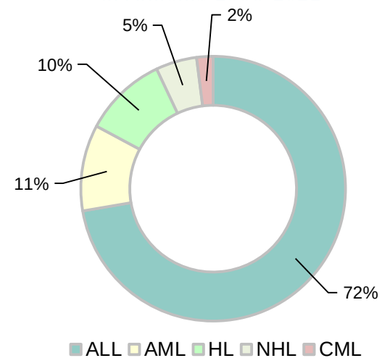
Materials & Methods

Retrospective analyses of ABO blood groups and Rh factor in children with cancer aged 0-18 years between 1995 and 2021 were performed. All the statistical information was taken from clinical records available in Pediatric Cancer and Blood Disorders Center of Armenia. Established in 2019 as a result of the union of three clinics, this center is the only one owning the database including all the cases of pediatric oncology in Armenia.

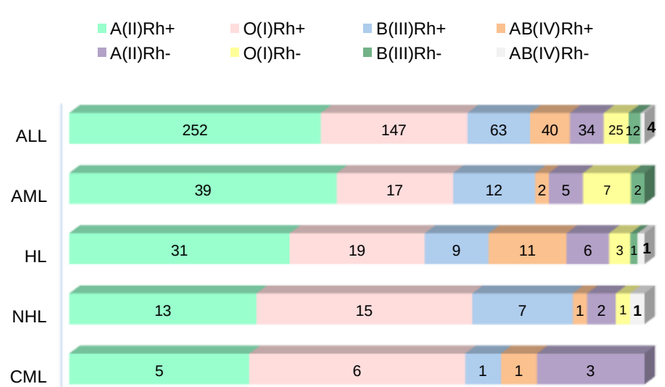
Summary

Among 826 patients 798 children were diagnosed with hematological malignances. Male/female ratio was 1.5.

Epidemiology of Hematological Malignancies in Armenia 1995-2021



Association Between Both ABO and Blood Groups and Hematological Malignancies in Armenia 1995-2021



Discussion

The analysis has showed that children with A+ that is dominant blood type in Armenia are mostly affected by hematological malignances in comparison with the ones who inherited the rest of blood groups. In order to evaluate the risk of developing hematological malignances depending on blood types, further investigations are needed.

Blood Type by Country 2022



The 10 countries with the highest prevalence of type A+ blood:

1. Armenia (46.3%)
2. Norway (41.6%)
3. Malta (41.0%)
4. Cyprus (40.35%)
5. Portugal (39.8%)
6. Japan (39.8%)
7. Uganda (39.0%)
8. Cameroon (38.8%)
9. Switzerland (38.0%)
10. Turkey (37.8%)

https://worldpopulationreview.com/country-rankings/blood-type-by-country