

First report on the implementation of primary immunodeficiencies (PID) biological diagnosis in Senegal: diagnostic challenges.

Guèye MS¹, Dème/Ly I², Kane A², Nakoulima A³, Diouf MA⁴, Ndour M¹, Diallo AA¹, Seck/Diao R⁵, Diop S⁵, Gadji M⁵, Mbengue B¹, Dièye TN⁵.

¹ Laboratoire d'Immunologie Hôpital Aristide le Dantec ² Centre Hospitalier National d'Enfants Albert Royer (CHNEAR) Dakar Sénégal ³ Service de Pédiatrie Hôpital Principal de Dakar Sénégal ⁴ Centre hospitalier de Pikine ⁵ Centre National de transfusion sanguine

Background

PIDs: heterogeneous groups of more than 330 genetic diseases affecting the immune system, predisposing the patients to a large spectrum of infections. In sub-Saharan African countries, these pathologies are **under-explored** and cause **many deaths**, unexplained and most of them occur in the **same siblings**.

Purpose

Conduct a **biological exploration** of PIDs with the **available technical means** to reinforce an established clinical diagnosis



Methods

Recruitment of patients: adults and children presenting warning signs according to the recommendations of the ASID and a negative retroviral serology

Analyses performed

In situ: CBC, electrophoresis of proteins and immunophenotyping

Abroad: dosage of complement, immunoglobulin weighting, genetic

Results

Patients : **33** Sex ratio (M/F) : **0.73**
Average age : 6.1 years Extr: 0 - 42

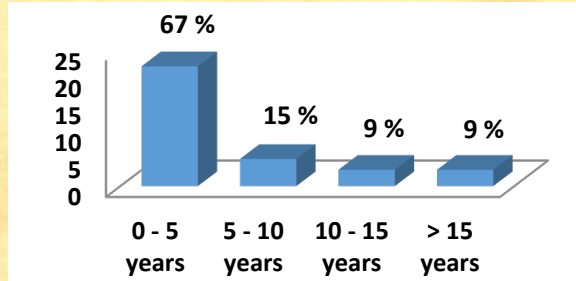


Figure 1: Age ranges

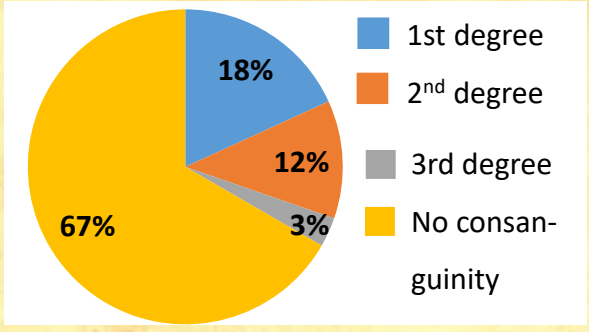


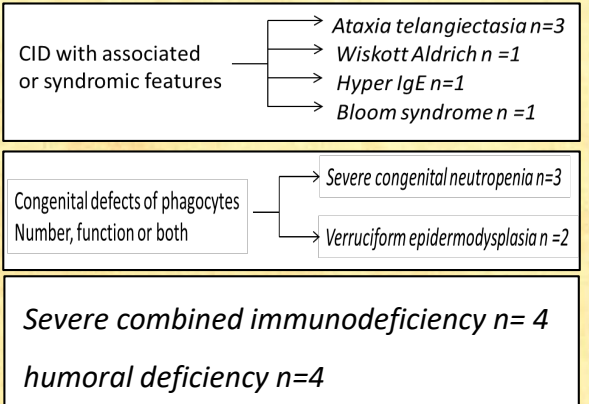
Figure 2: Consanguinity

Table 1: CBC and proteins electrophoresis

Characteristics	Effectives	Percentage
Neutropenia	8	24,24 %
Lymphopenia	6	18,18 %
Thrombocytopenia	8	21,62 %
Inflammatory Syndrome	15	81,25%

Table 2: Immunophenotyping

Markers	Rate	Effective
CD4+	Low	8/33 (22.85%)
CD8+	Low	4/33 (11.42%)
CD19+	Low	8/33 (22.85%)



Conclusion

Our study showed a rarity of these pathologies, not easily diagnosed and almost unknown to most clinicians. In view of the cases we have found, we must enhance our efforts to advocate with the competent authorities

PID-IEI IN AFRICA:
WHERE AND HOW TO FIND THEM?

Online 7th ASID Congress
Khartoum, SUDAN
October 1st-2nd, 2021

African School
September 18th, 2021

African Society for Immunodeficiencies
Société Africaine des Déficits Immunitaires
الجمعية الإفريقية لأمراض ضعف المناعة الأوتية