CERPOP SOUTENANCE DE THESE Gabriel Loni, doctorant dans l'équipe SPHERE :

Jeudi 12 décembre 2024 à 14h, dans la salle du conseil de la faculté de médecine de Purpan (37 allées Jules Guesde).
Titre : Devenir des enfants exposés non-infectés par le VIH nés de mères recevant un traitement antirétroviral basé sur le ténofovir au Cameroun : croissance, morbidité périnatale et toxicité rénale

Membres du jury :

M. Mathurin TEJIOKEM - Rapporteur
Mme Florence BODEAU-LIVINEC - Rapporteure
Mme Michelle KELLY-IRVING - Examinatrice
M. Ahmadou ALIOUM – Examinateur
M. Gilbert TENE - Examinateur

Mme Valériane LEROY - Directrice de thèse

Lien de visioconférence pour la soutenance :

https://teams.microsoft.com/l/meetup-join/19%3ameeting_OGNjNGIwODgtY2ExNi00OTcxLWE4ZGUtMTE5ZWNlMDkwNDYx%40thread.v2/0?context=%7b%22Tid%22%3a%2299dde8fb-92f6-414d-bc5e-44ffa3e2419c%22%2c%22Oid%22%3a%2275c9eb6d-d66c-4cc5-8474-bcdc4d7dc235%22%7d

Summary

The population of children who are HIV-exposed and uninfected (CHEU) is rapidly increasing globally and more so in sub-Saharan Africa (SSA), where over 80% of pregnant women living with HIV are found. This growth is essentially driven by increased access to antiretroviral drugs for prevention of mother-to-child transmission of HIV (PMTCT), especially within the framework of lifelong ART for HIV-positive pregnant women regardless of their clinical or immunological status called Option B+. The backbone of this strategy in Cameroon and other SSA countries has been the use of Tenofovir-containing regimens. Even though born HIV-free, recent reports of health outcome disparities have been reported in CHEU compared to HIV-unexposed children (CHU). These range from neurodevelopmental delay, higher infectious morbidity and mortality, and growth faltering. However, limited studies have assessed growth outcomes of CHEU in comparison to that of CHU and for some that have done that, the reports are conflicting. Secondly, concerns about ARV toxicity following in utero exposure persists and it is still unclear whether in utero exposure to Tenofovir (TDF) affects renal function in HIV-exposed infants. Finally, the mechanism that underlies increased susceptibility to infectious diseases in this population is not clearly elucidated but immune activation in CHEU at birth due to prolonged in utero exposure to a chronically immune activated in utero environment may play a role; throwing more light on these underlying mechanisms will be important in designing comprehensive strategies to improve CHEU health.

The main goal of this thesis was to assess health outcomes in CHEU compared to CHU. Specifically, we set out to determine whether CHEU do have poorer growth outcomes within the first five years of life compared to CHU. Secondly, we sought to investigate whether in utero exposure to HIV and TDF-containing regimens affects renal function in CHEU. Lastly, we sought to assess immune activation at birth in CHEU compared to CHU and investigate the association this has with morbidity and mortality during the first year of life.

In conclusion, CHEU have a greater burden of growth faltering than CHEU up to 2 years of age, and TDF exposure seems to cause renal tubular injury in these children. It remains to be investigated if this poorer growth and renal tubular injury normalises in the long term, beyond the period assessed in our work. Interventions to improve the health of these children likely needs to begin in the antenatal period and national PMTCT programs should continue and strengthen pharmacovigilance studies on the potential influence of newer ARVs like Dolutegravir which is currently widely used in SSA. Finally, the current PMTCT goal of being born free of HIV in not enough; these children have to thrive and survive.

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