Psychotic Disorders in Young Adults with Perinatally-Acquired HIV: a Multicentre UK Study

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BACKGROUND

Single cohort UK data suggests an increased lifetime prevalence of psychosis in young people living with perinatally acquired HIV (YPHIV)[1] compared to age matched peers in the general population (0.5-1.0%)[2] echoed by US data[3]. Reasons are likely multifactorial and include lifelong exposure to a neurotropic virus, neuro-inflammation during brain development, and greater experience of adverse life events such as parental death.

METHODS

Retrospective case note review of all YPHIV ≥18 years engaged in care at three London youth HIV clinics (n=377) from first attendance to 01/04/2024. First and subsequent episodes of psychosis were described. The role of gender, ethnicity, country of birth, prior CDC-C diagnoses, learning disability, parental death, family history of mental health disorders, and cannabis use in developing psychosis was investigated using a multivariate logistic regression model.

RESULTS

27/377 (7.2%) YPHIV experienced psychosis.

→ Median age at first episode: 21 (IQR 17-25) years
→ Current median age 29 (IQR 25-31) years
→ 48% male
→ 82% Black
→ 62% 1st generation migrant (born outside the UK)
→ 68% had VL<200 copies/mL at first episode of psychosis

Age, gender, ethnicity, and birthplace were comparable for YPHIV with or without psychosis.

In 78% no organic cause for psychosis was identified. 6 YPHIV had a probable organic cause: one had efavirenz related psychosis, one had positive anti-NMDA receptor antibodies, two were off antiretroviral medication and had CNS complications, and two had cannabis related psychosis.

In this multicenter UK cohort of *377* young adults with PHIV, psychosis was 7 times more prevalent than the age matched UK general population.
Most at risk were those with prior CDC-C diagnoses, cannabis use, parental bereavement and family history of mental health disorders.
Those with psychosis experienced high levels of suicidality and self harm.

Median nadir CD4 count was 230 (IQR 88-373) cells/μL for those with psychosis, compared to 310 (IQR 140-520) cells/μL for those without (p =.108) (Figure 1).

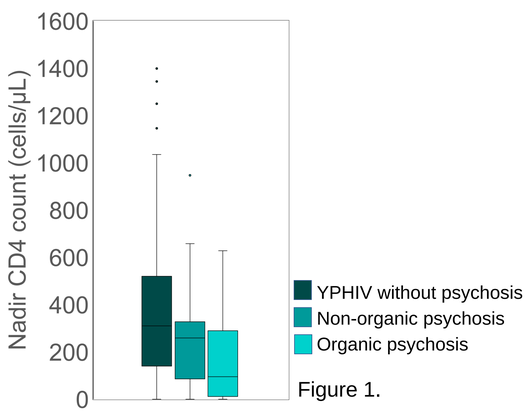


Figure 1.

All who developed psychosis required inpatient treatment. 85.2% needed antipsychotics at first presentation of psychosis.

Factors significantly associated with psychosis were:

- **Prior CDC-C diagnoses (OR 3.51, 95% CI 1.17 – 10.49, P=.03)**
- **Parental bereavement (OR 6.47, 95% CI 1.97 – 21.20, P=.002)**
- **Cannabis use (OR 7.13, 95% CI 2.45 – 20.78, P<.001)**
- **Family history of mental health disorders (OR 23.46, 95% CI 5.51 – 99.82, P<.001).**

62.3% of those with psychosis had an additional mental health diagnosis most frequently depression, (76%) and/or anxiety (29%).

59% of those with psychosis live in the 3 most deprived areas of the UK compared with 49% of those without psychosis (p =.343).

Median time from first episode of psychosis to latest follow up (LFU) was 84 (IQR 36-108) months.

- 74% had recurrent episodes of psychosis.
- 67% remained on antipsychotic medication
- Median length of community mental health follow up was 40 (IQR 27 -81) months.
- At LFU 85% of those who had ever experienced psychosis had VL<200 copies/mL compared to 89% of those not experiencing psychosis (p=.06) (Figure 2).

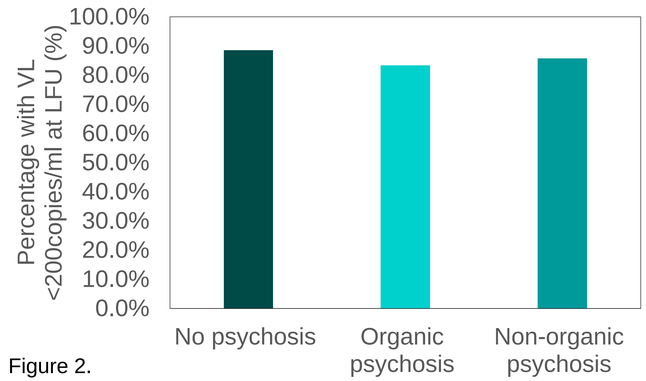


Figure 2.

33% of YPHIV who ever experienced psychosis reported self-harm or suicidality compared to 3.7% of those who never experienced psychosis (χ^2 22.20, P<.001).

CONCLUSIONS

An awareness of the increased susceptibility to psychosis in YPHIV is necessary to facilitate early diagnosis and management.
Integration of mental health services into HIV care is imperative, particularly during the vulnerable period of transition.

ACKNOWLEDGMENTS

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References 1. Mallik I et al. Psychotic disorders in young adults with perinatally acquired HIV: a UK case series. Psychol Med. 2022 Sep;52(12):2263-2269. 2. McManus S, Bebbington P, Jenkins R, B. T. (2016). Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014.3. Dias CC et al. Psychiatric Comorbidities in Pediatric Inpatients With Human Immunodeficiency Virus Infection and Impact on Hospital Course: Inputs From a Case-Control Inpatient Study. Cureus. 2021 Jun 16;13(6):e15686.