Psychotic disorders in young adults with perinatally acquired HIV

Clinical and psychosocial characteristics of a UK cohort

Indira Mallik[a], Krupa Ravi[b], Graham Frize[c], Sara Ayres[c], Sarah Fidler[c,d], Caroline Foster[c]

[a]Barts Health NHS Trust, London, U.K.; [b]NHS Lothian, Edinburgh, UK; [c]900 Clinic, Imperial College Healthcare NHS Trust, London, UK, [d]Imperial College London and Imperial College NIHR BRC, UK.

BACKGROUND

Emerging evidence[1] suggests lifetime prevalence of psychosis in young people living with perinatally acquired HIV (YPaHIV) is greater than is reported of individuals aged 16-34 years in the UK general population (0.5-1.0%)[2]. This is thought to be due several intersecting risk factors: exposure to a neurotropic virus, neuroinflammation during brain development, and greater experience of adverse life events such as parental death[1]. We aimed to describe the clinical and psychosocial characteristics, and HIV outcomes of YPaHIV who developed psychosis in a London cohort.

METHODS

Retrospective case note review of YPaHIV aged ≥18years registered at a dedicated youth service in London (n=184) from first attendance to 09/06/2022. Organic psychosis was defined as psychosis secondary to an organic pathology such as encephalitis, medications, or recreational drugs. Non-organic psychosis was defined as psychosis due to a primary mental health disorder as diagnosed by a psychiatrist after organic causes excluded.

RESULTS

→ Median age of cohort (n=184) in June 2022 was 27 (IQR 23-29) years

→ 52.6% male. 78.9% Black ethnicity. 42.1% born outside the UK

19/184 (10.6%) had experienced psychosis

→ Median age at first episode of psychosis was 21 (range 14-29) years

→ 11 (57.9%) had probable non-organic psychosis, the causes for organic psychosis are given in Figure 1.

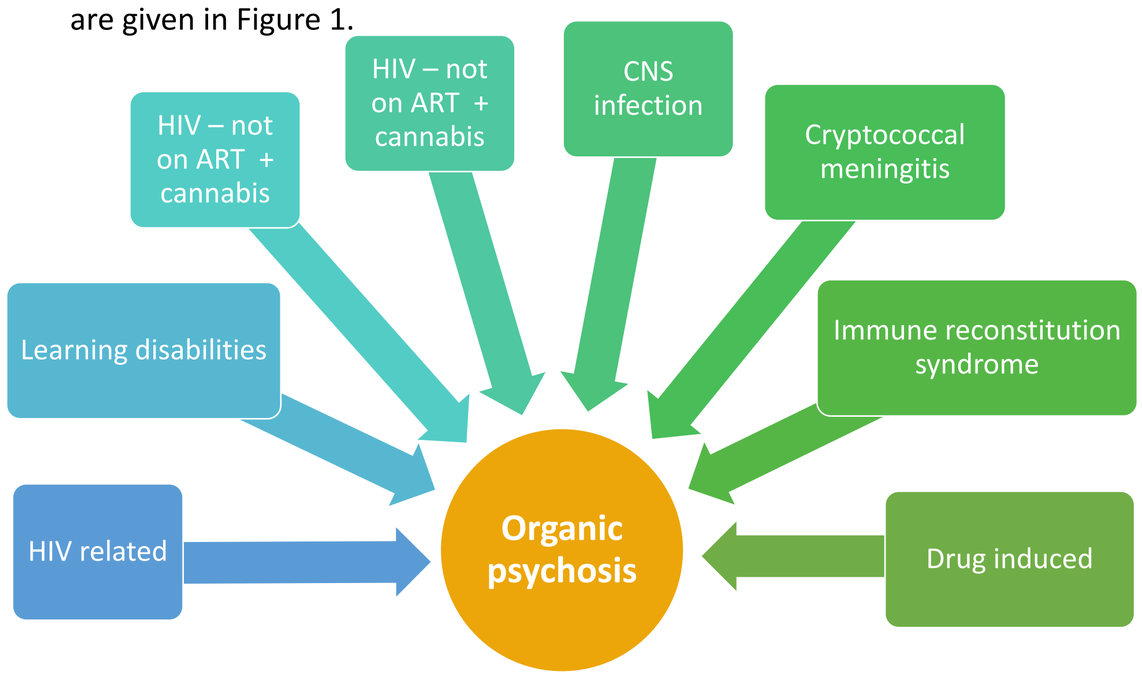

Figure 1. The causes of organic psychosis amongst YPAHIV in this cohort (n=8).

→ Those who experienced organic psychosis had markers of more profound immunosuppression at time of psychosis a higher rates of CDC- c diagnoses. (Table 1).

	Non-organic (n=11)	Organic (n=8)	All (n=19)
Viral load<200 copies/ml at psychosis diagnosis	8/10 (80%)	2/7 (28.6%)	10/17 (58.8%)
Median CD4 count at psychosis (cells/µL)	685 (IQR 416-853) (n=10)	79 (IQR 36-650)	615 (IQR 63-779) (n=18)
On ART at time of psychosis	8/10 (80%)	3 (37.5%)	10/18 (55.6%)
Median nadir CD4 count (cells/µL)	333 (IQR 138-579)	47 (IQR 9-181)	169 (IQR 14-493) (n=18)
Past CDC-C diagnosis	4 (36.4%)	5 (62.5%)	9 (47.7%)
Learning disability impacting independent living	1 (9.1%)	3 (37.5%)	4 (21.1%)

Table 1. The HIV characteristics of YPaHIV with psychosis

→ There were high levels of adverse life events and markers of deprivation amongst YPaHIV who experienced psychosis as well as high proportion with family history of mental health disorders (Table 2)

	Non-organic (n=11)	Organic (n=8)	All (n=19)
Any past recreational drug use	2 (18.2%)	5 (62.5%)	7 (36.8%)
First degree relatives with a mental health diagnosis	5/7 (71.4%)	2/3 (66.7%)	7/10 (70%)
Experience of violence	6 (54.5%)	3 (37.5%)	9 (47.3%)
Experience of homelessness/ housing insecurity	4 (36.4%)	2 (25%)	7 (36.8%)
Experience of parental death	5 (45.5%)	5 (62.5%)	10 (52.6%)
Experience of being a looked after child	2/10 (20%)	4 (50%)	6 (31.6%)
% of YPaHIV living in 3 most deprived deciles of the Index of Multiple Deprivation in the UK	6 (54.5%)	3 (37.5%)	9 (47.4%)

Table 2. The social and family history of YPaHIV with psychosis

→ 84.2% of YPaHIV who experienced psychosis required antipsychotic medication. All required an in-patient stay for psychosis

→ 11 (57.9%) YPaHIV experienced more than one psychotic episode

→ 11 (57.9%) had at least one other non-psychosis mental health diagnosis: most commonly depression/low mood (81.8%), and anxiety (54.5%).

→ Median length of community mental health service follow-up was 19 (IQR 4-60) months.

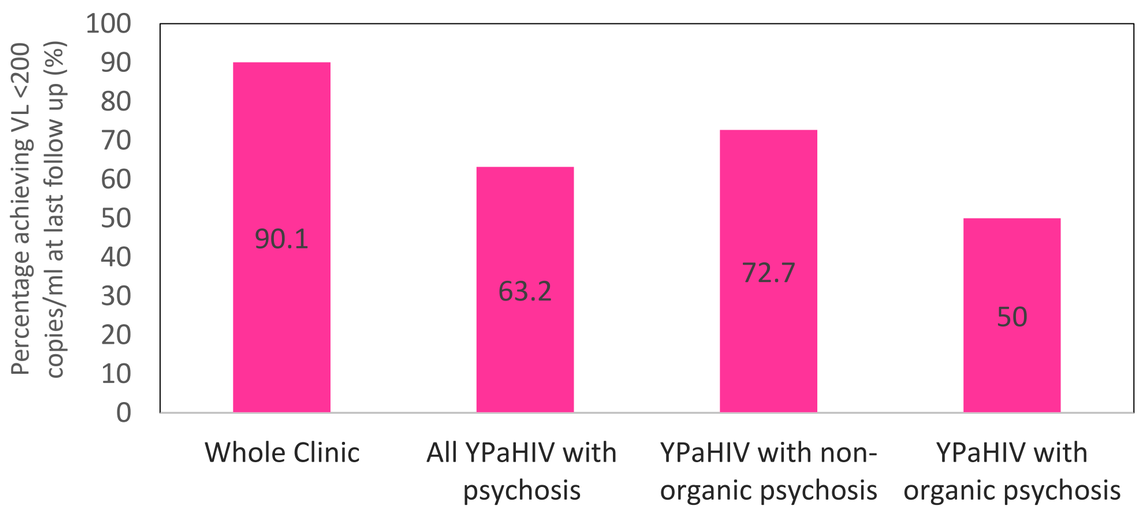

Figure 2. Percentage of PaHIV achieving VL<200 copies/ml at last follow up

Median length of follow up since first psychosis was 60 (IQR 24.5-75) months

- 12 (63.2%) had achieved VL<200 copies/mL compared to 90.1% of the clinic cohort as a whole (Figure 2)
- 82.4% (16/19) were neither employed nor in full time education.

CONCLUSIONS

The prevalence of psychosis in our cohort was tenfold higher than the general age-matched UK population. YPaHIV with psychosis had high social deprivation and experienced multiple adverse life events. YPaHIV who had experienced psychosis had poor long-term outcomes: low rates viral suppression and the majority were unemployed. Services caring for YPaHIV should be aware of the increased vulnerability to developing psychosis and the importance of integrated mental health and social care services embedded within HIV care.

References: 1. Mallik I, Pasvol T, Frize G, Ayres S, Barrera A, Fidler S, Foster C. Psychotic disorders in young adults with perinatally acquired HIV: a UK case series. Psychol Med. 2022 Sep;52(12):2263-2269. doi: 10.1017/S0033291720004134. Epub 2020 Nov 13. PMID: 33183361. 2. McManus S, Bebbington P, Jenkins R, B. T. (2016). *Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014.*

900 Imperial College Healthcare NHS Trust