

Background

Despite the availability of federally funded antiretroviral treatment for HIV in Mexico for all medically insured and non-insured patients since the year 2000 the incidence of hospitalization in advanced stages of disease and mortality for HIV/AIDS patients remains significantly high.

Objective

To analyze epidemiological data and to determine the causes of hospitalization and advanced presentations of HIV/AIDS patients based on CD4+ T-cell counts from 2013-2017.

Methods

- Retrospective study, cohort of HIV patients admitted in a third-level University Hospital in north-eastern Mexico
- Hospitalization records were collected for 385 inpatient admissions from 2013 to 2017 that were diagnosed with HIV upon admission, or prior to admission, by matching the hospitalization records using the CID -10 codes for HIV infection
- Demographic and clinical characteristics were analyzed for first-time hospitalizations
- Patients' most recent CD4+ T-cell count (within 6 months), if available, was documented
- All hospitalizations were classified according to age group, gender, lengths of stay and primary diagnosis (AIDS-defining illness and Non-AIDS defining infection)

Results

- Among 385 patients evaluated, 189 had CD4+ T-cell lymphocyte counts available (49.1%), and the average CD4+ count was 198.8 cells/mm³.
- Patients with CD4+ counts below 200 cells/mm³ constituted 65.1% (n = 123). Those with CD4+ counts of 200-499 cells/mm³ represented 24.3% (n = 46), and only 10.6% (n = 20) had counts above 500 cells/mm³
- AIDS-defining illnesses were the most common cause of hospitalization (56.6%, n = 218), followed by Non-AIDS defining infections (20.3%, n = 78). Of those patients, males represented 79.3% (n = 174) and 83.3% (n = 65), respectively
- A total of 86 fatalities were reported during the period analyzed, amounting to a mortality of 22.3%
- Most hospitalizations had a length of stay of 11 days or more (46.0%, n = 177), and a mean length of stay of 13 days
- A total of 197 (51.2%) patients admitted were unaware of their HIV diagnosis

Table 1. All-cause, AIDS-Defining Illness, and Non-AIDS Defining Infections among inpatient hospitalizations, 2013-2017

	Total		Among males ^a		Among females ^b	
	N	%	N	%	N	%
Primary diagnosis						
AIDS-defining illness	218	56.6	174	79.8	44	20.2
Non-AIDS defining infection	78	20.3	65	83.3	13	16.7
Non-AIDS defining cancer	7	1.8	6	85.7	1	14.3
Cardiovascular	2	0.5	1	50.0	1	50.0
Gastrointestinal/Hepatic	20	5.2	16	80.0	4	20.0
Pulmonary	0	0.0	0	0.0	0	0.0
Endocrine or metabolic	2	0.5	1	50.0	1	50.0
Renal/Genitourinary	6	1.6	4	66.7	2	33.3
Neurological	7	1.8	6	85.7	1	14.3
Psychiatric	1	0.3	1	100.0	0	0.0
Substance abuse	2	0.5	2	100.0	0	0.0
Injury or poisoning	7	1.8	6	85.7	1	14.3
Pregnancy and newborn	15	3.9	0	0.0	15	100.0
All other causes	12	3.1	10	83.3	2	16.7
N/A	8	2.1	8	100.0	0	0.0

Note. ^a Percentages were calculated according to the total of individuals for each primary diagnosis.
^b Percentages were calculated according to the total of individuals for each primary diagnosis.

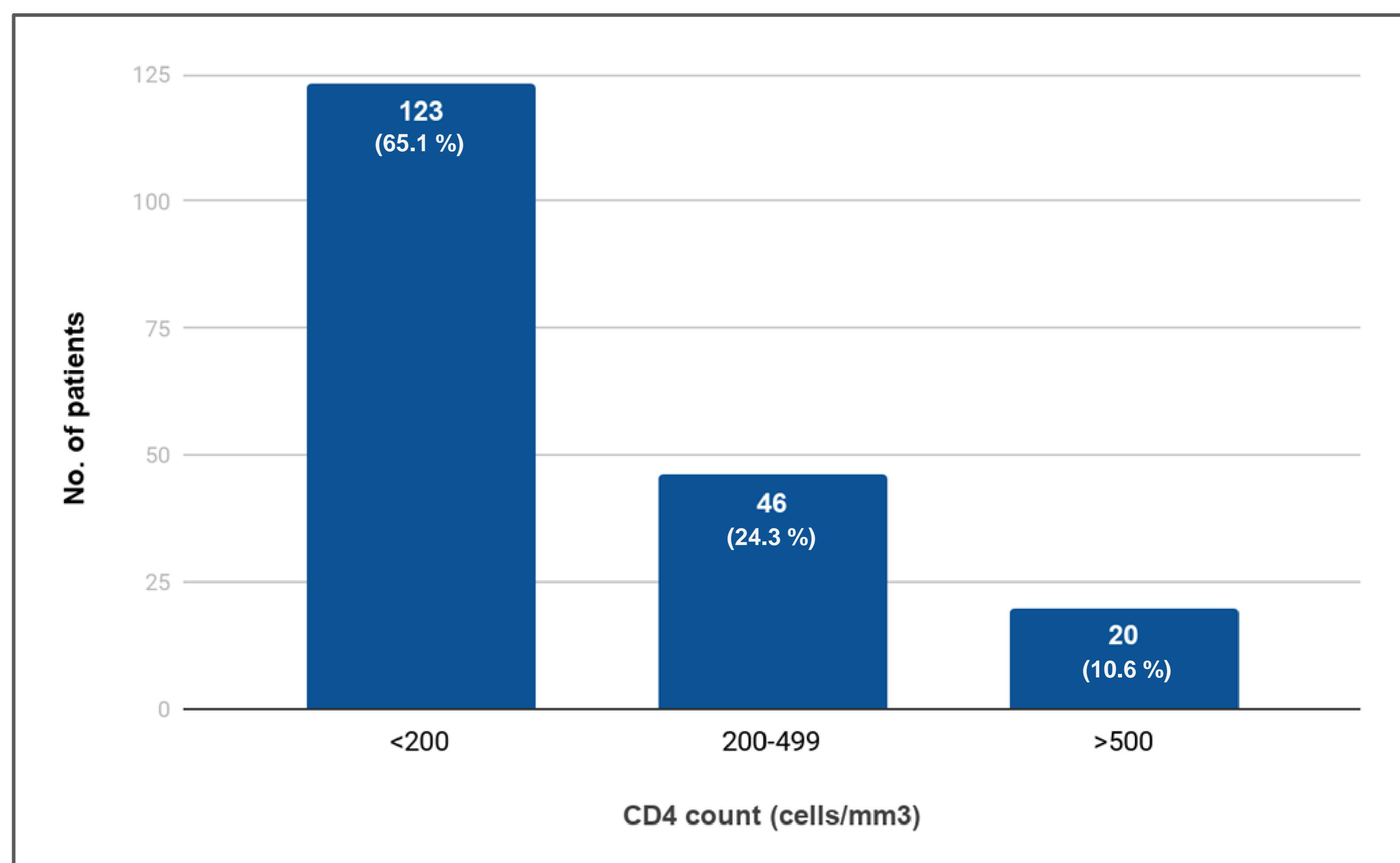


Figure 1. Most recent CD4+ T-cell counts (within 6 months from the date of admission) for patients with available information (N=189)

Conclusion

There exists an urgent need for more efficient preventive and early detection strategies that may lead to reduced advanced presentations of the disease and improved outcomes.

References

1. Lazar R, Kersanske L, Xia Q, Daskalakis D, Braunstein S. Hospitalization Rates Among People With HIV/AIDS in New York City, 2013. *Clinical Infectious Diseases*, 65(3), 469-476. Available from: doi:10.1093/cid/cix343
2. Rodríguez C ed., Hermelinda B ed. *VIH/SIDA y salud pública: Manual para personal de salud*. 2nd ed. Mexico. Centro Nacional para la Prevención y el Control del VIH/SIDA; 2009