

PREVALENCE OF DYSLIPIDEMIA AND CHARACTERISTICS OF THE LIPID PROFILE IN PATIENTS WITH HIV INFECTION ON HIGHLY ACTIVE ANTIRETROVIRAL THERAPY IN A PUBLIC MEXICAN GENERAL HOSPITAL

Luis Carlos Ibarra Cobas*, Berenice González Flores**, Miguel Guillermo Flores Padilla***

*HIV Clinic, Hospital General de Zona 2 IMSS, Saltillo, México. **Clínica Especializada Condesa Iztapalapa, México City.

***Internal Medicine. Centro Médico Nacional Siglo XXI. IMSS, México City.

BACKGROUND

As far as 2018, 202295 cases of HIV infection have been reported in Mexico.¹ In the general population, it's estimated that the prevalence of dyslipidemia exceeds 30%.^{2,3} People living with HIV (PLWHIV) have increased cardiovascular risk associated with chronic inflammation, immune dysfunction and antiretrovirals⁴. Dyslipidemia is becoming more prevalent due to the increase in life expectancy and other risk factors in PLWHIV.⁵ The purpose of the present study was to evaluate the frequency of dyslipidemia in Mexican mestizo HIV patients receiving antiretroviral treatment in a Mexican secondary healthcare facility.

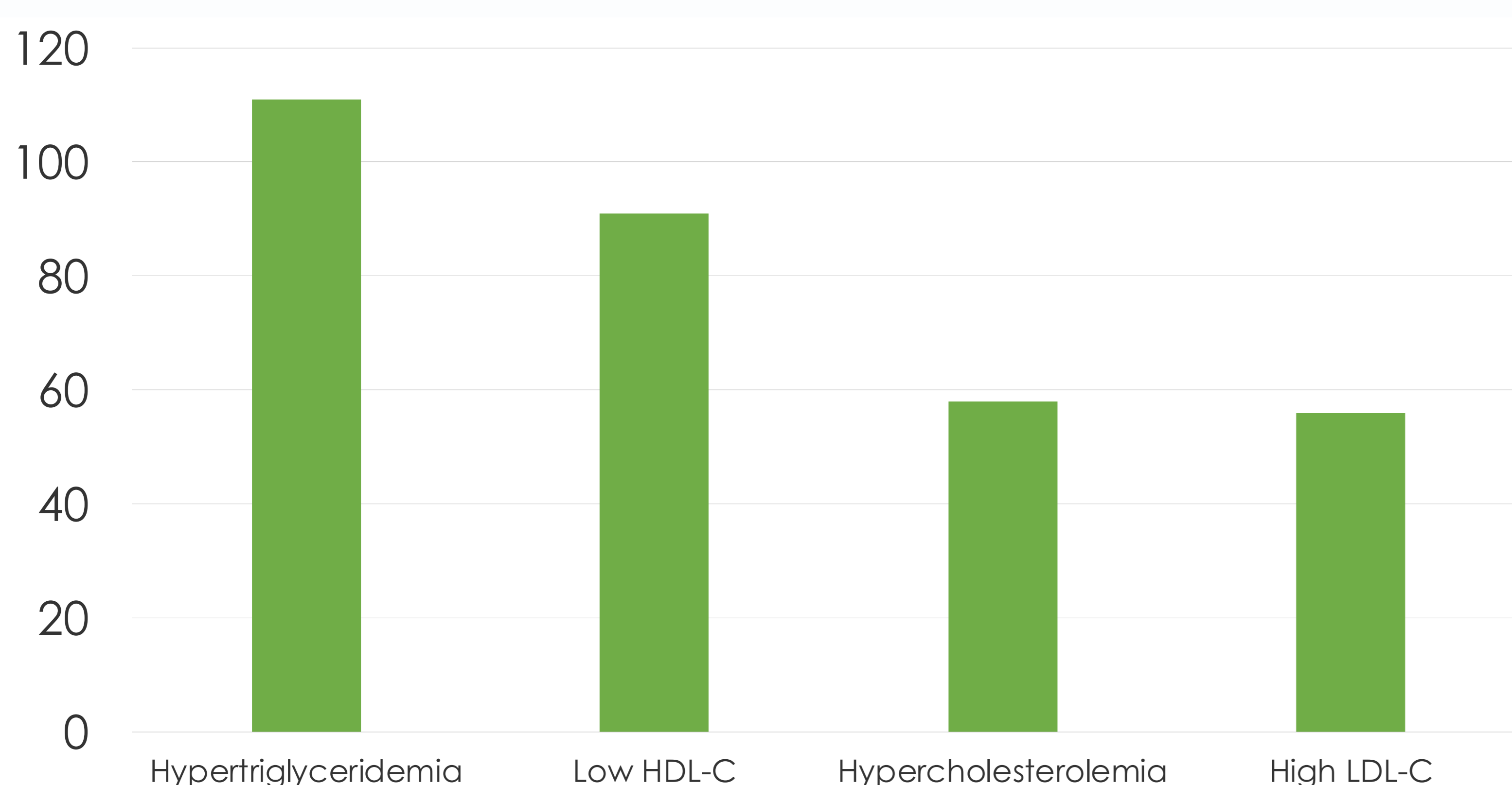
MATERIALS AND METHODS

A cross-sectional study was carried out. Clinical records of patients over 18 years of age who had a complete lipid profile and at least 6 months of continuous antiretroviral treatment were evaluated. Dyslipidemia was defined as cholesterol level ≥ 200 mg/dL, triglycerides ≥ 150 mg/dL, LDL-C ≥ 115 mg/dL or HDL-C < 40 mg/dL.⁶ Variables are expressed in median and range, bivariate analysis was performed using χ^2 , p value < 0.05 was considered statistically significant.

RESULTS

A total of 183 patients were included. The median age was 38 years (20-72). Out of 183 patients, 88.5% were male, and 80.3% met at least one criterion for dyslipidemia. The most frequent disorder was hypertriglyceridemia (60.7%), with a median 214 mg/dL (37-713 mg/dL) followed by low HDL-C levels (49.7%), median 42 mg/dL (25-179 mg/dL), hypercholesterolemia (31.7%), median 183 mg/dL (86-381 mg/dL) and high concentrations of LDL-C (30.6%), median 101 mg/dL (4-362 mg/dL).

On the bivariate analysis there was a tendency for hypercholesterolemia in patients receiving protease inhibitors however it was not statistically significant in this study.



Number of patients with dyslipidemia

Population basal characteristics n=183

Characteristic	Number (%)
Gender	
Male	162 (88.5)
Female	21 (11.5)
Age	
≤ 45 years old	125 (68.3)
> 45 years old	58 (31.6)
Viral Load	
Undetectable	143 (78.1)
≤ 200 copies/mL	25 (13.6)
> 200 copies/mL	15 (8.2)
CD4 cells	
> 500 cells/mm ³	105 (57.3)
201-500 cells/mm ³	70 (38.3)
≤ 200 cells/mm ³	8 (4.3)
ART	
NNRTI	122 (66.6)
PI	55 (30)
INSTI	6 (3.3)

CONCLUSIONS

Higher triglyceride values and decrease in HDL-C were the most commonly encountered disorders. There appears to be an association between the use of protease inhibitors with hypercholesterolemia, however it was not statistically significant in this study group. Limitations of the study were the size of the sample and other factors that can cause dyslipidemia that have not been taken into account. Due to a higher life expectancy of PLWHIV and the cardiovascular risk it represents it is necessary to implement measurements to identify and control dyslipidemia and to adjust the antiretroviral drugs associated with this disorder. The results obtained are similar to other series performed in Latin-American patients. Currently there are no local guidelines or consensus on the control and treatment of dyslipidemia in PLWHIV.

REFERENCES

1. Vigilancia Epidemiológica de casos de VIH/SIDA en México. Registro Nacional de Casos de SIDA. Actualización Noviembre 2018. Dirección General de Epidemiología.
2. Encuesta Nacional de Salud y Nutrición de Medio Camino 2016 (ENSANUT MC 2016). Informe final de resultados. Instituto Nacional de Salud Pública.
3. J. Escobedo-de la Peña, et al.: Dislipidemias en México. Estudio CARMELA. Gaceta Médica de México. 2014;150.
4. Documento de consenso sobre alteraciones metabólicas y riesgo cardiovascular en pacientes con infección por el virus de la inmunodeficiencia humana. Grupo de expertos del Grupo de Estudio sobre Alteraciones Metabólicas (GEAM), de la Secretaría del Plan Nacional sobre el Sida (SPNS) y del Grupo de Estudio de Sida (GeSIDA). Enferm Infecc Microbiol Clin. 2015;33(1):40.e1-40.e16.
5. Tratamiento Antiretroviral del Paciente Adulto con Infección por el VIH. Ciudad de México, Secretaría de Salud. 16/03/2017.
6. Diagnóstico y tratamiento de dislipidemias (hipercolesterolemia) en el adulto. México: Secretaría de Salud; 03/11/2016.