Epidemiological Profile of Patients with Gestational Trophoblastic Neoplasia Treated with Methotrexate in the Western Amazon: A 10-Year Retrospective Study

Kellen Maria Pinho da Silva[1]; Luana Vitória Amaral Lyra[1]; Paloma Aparecida Matos[1]; Mailson Costa de Queiroz[1]; Elaine Azevedo Soares Leal[1].

[1]Federal University of Acre (UFAC), Rio Branco, Acre, Brazil

OBJECTIVE

To characterize the epidemiological profile of patients with gestational trophoblastic neoplasia treated with methotrexate in the Western Amazon from 2015 to 2025, based on sociodemographic and obstetric characteristics.

METHODS

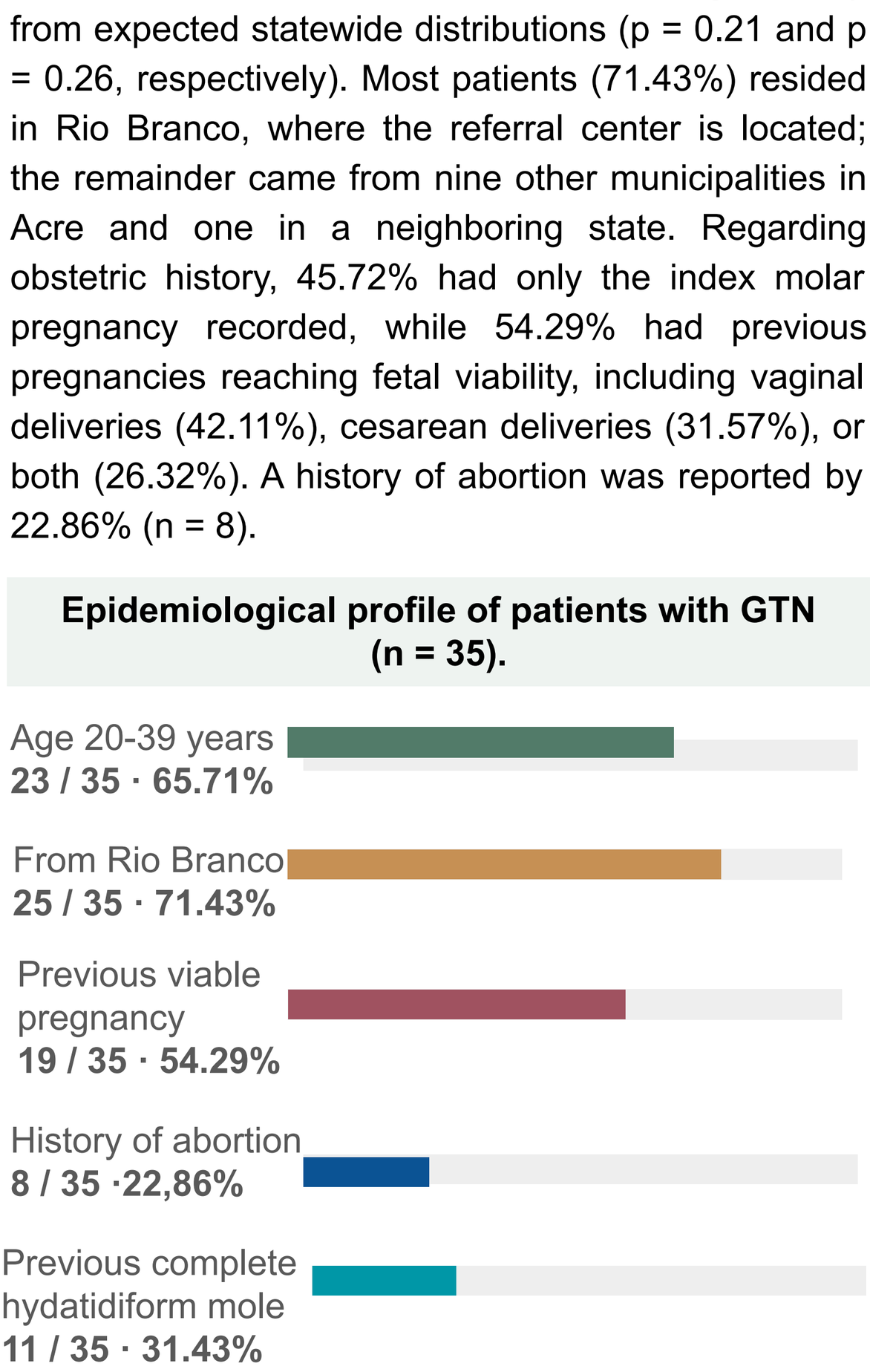
A retrospective cohort study was conducted through a review of medical records from the Gestational Trophoblastic Disease (GTD) Referral Center at Fundação Hospitalar do Acre (FUNDHACRE), in the Western Amazon. Patients with confirmed gestational trophoblastic neoplasia (GTN) diagnosed between 2015 and 2025 who were treated with methotrexate were included. The variables analyzed included age, parity, place of residence, educational attainment, race, and hydatidiform mole classification. Data were analyzed using descriptive statistics and the chi-square test (χ^2), with a significance level of 5%.

RESULTS

Of 148 patients with gestational trophoblastic disease (GTD), 35 (23.64%) had gestational trophoblastic neoplasia (GTN) and met the inclusion criteria. Mean age at diagnosis was 27.4 ± 9.56 years, with 65.71% aged 20–39 years. Among these patients, 2.85% had choriocarcinoma, 11.42% partial hydatidiform moles, 31.43% complete moles, and 54.28% remained unclassified for other reasons.

Racial (Brown [parda], White, and Black) and educational distributions did not differ significantly from expected statewide distributions (p = 0.21 and p = 0.26, respectively). Most patients (71.43%) resided in Rio Branco, where the referral center is located; the remainder came from nine other municipalities in Acre and one in a neighboring state. Regarding obstetric history, 45.72% had only the index molar pregnancy recorded, while 54.29% had previous pregnancies reaching fetal viability, including vaginal deliveries (42.11%), cesarean deliveries (31.57%), or both (26.32%). A history of abortion was reported by 22.86% (n = 8).

Epidemiological profile of patients with GTN (n = 35).



CONCLUSION

GTN predominantly affected young women, with no statistically significant differences in race or educational attainment compared with statewide distributions. The geographic distribution of cases highlights FUNDHACRE's central role in GTN management in the Western Amazon and the importance of effective referral pathways and early diagnosis in primary care.

REFERENCES

KEYWORDS: Epidemiology; Methotrexate; Gestational Trophoblastic Disease.