Clinical Characteristics and Maternal, Fetal and Oncologic Outcomes in Twin Pregnancies with Complete Hydatidiform Mole and Coexisting Live Fetus: A Systematic Review

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OBJECTIVES

This study aimed to review the available evidence and describe maternal, laboratory and obstetric characteristics associated with maternal, fetal, and oncological outcomes in twin pregnancies with complete hydatidiform mole and a coexisting live fetus.

METHODS

A systematic review was conducted according to PRISMA 2020. PubMed, BVS, SciELO, and CAPES were searched using MeSH/DeCS terms and free-text keywords. Case reports, case series, and observational studies published in English, Portuguese, or Spanish were included. Two reviewers independently screened studies, extracted data, and assessed methodological quality using Joanna Briggs Institute Critical Appraisal Checklists. Among 433 records identified, 48 full text articles were evaluated, 33 studies including 34 pregnancies were included (Figure 1).

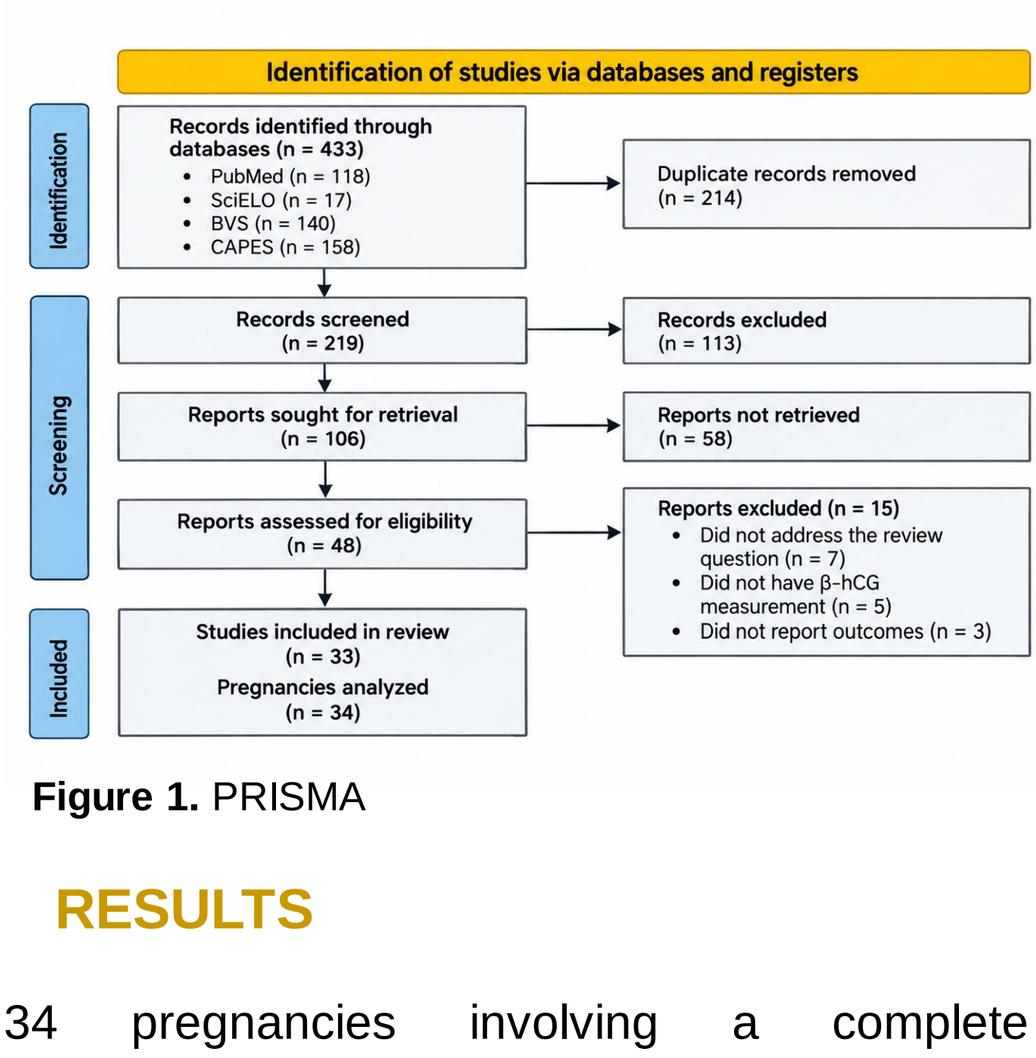


Figure 1. PRISMA

RESULTS

34 pregnancies involving a complete hydatidiform mole with a coexisting fetus were included. Maternal age ranged from 19 to 45 years, with diagnosis predominantly occurring during the second trimester. The most frequently reported maternal complications were vaginal bleeding (70.6%), anemia (29.4%), pre-eclampsia (20.6%), and hyperthyroidism (20.6%). Most pregnancies were initially managed expectantly with multidisciplinary surveillance (Table 1).

Characteristic	n (%)
Vaginal bleeding	24/34 (70.6%)
Anemia	10/34 (29.4%)
Pre-eclampsia	7/34 (20.6%)
Hyperthyroidism	7/34 (20.6%)
Hyperemesis gravidarum	6/34 (17.6%)
Abdominal pain	5/34 (14.7%)
Gestational hypertension	4/34 (11.8%)

Table 1. Maternal complications reported in twin pregnancies with complete hydatidiform mole and a coexisting live fetus.

Live birth occurred in 29 pregnancies (85.2%), with prematurity reported in 62.1% of cases. Among live-born infants, neonatal survival was 86.2%; all neonatal deaths occurred in newborns weighing less than 1200 g. Cesarean delivery was the most common method of delivery (73.5%), although the available evidence did not allow the conclusion to be drawn regarding whether it is associated with fetal or oncological outcomes due to methodological heterogeneity (Table 2).

Outcome	n (%)
Live birth	29/34 (85.2%)
Preterm birth (less than 37 weeks)	18/29 (62.1%)
Cesarean delivery	25/34 (73.5%)
Vaginal delivery	5/34 (14.7%)
Neonatal survival among live-born infants	25/29 (86.2%)
Neonatal mortality among live-born infants	4/29 (13.8%)
Gestational trophoblastic neoplasia (GTN)	7/34 (20.5%)

Table 2. Obstetric, neonatal, and oncologic outcomes of the included pregnancies.

Among patients with available follow-up, gestational trophoblastic neoplasia occurred in 20.5%. Descriptive analysis suggests that favorable maternal and fetal outcomes are achievable in selected cases, particularly in the absence of severe hemorrhage, clinical instability, or hypertensive complications.

CONCLUSIONS

Twin pregnancies with complete hydatidiform mole and a coexisting live fetus represent a rare and challenging condition associated with significant maternal morbidity, prematurity, and persistent risk of gestational trophoblastic neoplasia. Favorable outcomes appear achievable in selected patients managed expectantly under multidisciplinary surveillance. Further multicenter studies are needed to define prognostic factors.

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