

Julieth Alexandra Guzmán López¹, Luz Ángela Gutiérrez Sánchez¹, Gabriel David Pinilla-Monsalve¹, Ilan E. Timor-Tritsch²

1. Faculty of Health Sciences, Department of Obstetrics and Gynecology , Universidad Industrial de Santander, Colombia

2. Department of Obstetrics and Gynecology, New York University School of Medicine, United States of America

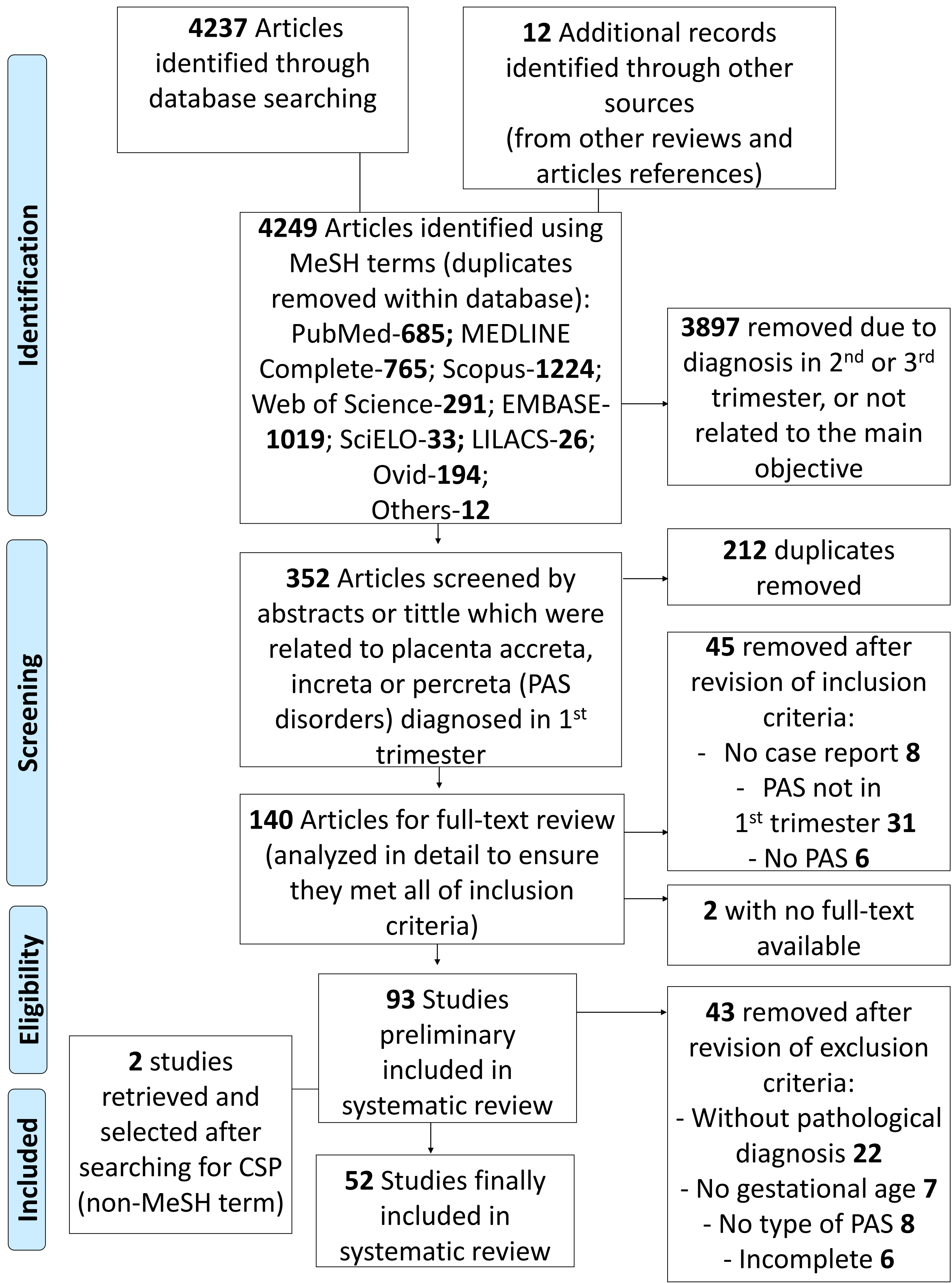
INTRODUCTION

Placenta accreta spectrum (PAS) disorders are rare in the first trimester of pregnancy¹. Recent studies show that suggestive signs of PAS disorders vary over time. Given the difficulty for establishing an early diagnosis of PAS disorders in the first trimester of pregnancy, this systematic review was conducted to analyse published case reports and series of patients with a definitive histopathological diagnosis before week 14 of pregnancy.

METHODOLOGY

Different databases were reviewed up to November 2018. Systematic search strategies were used applying filters by type of study and language , using the following combinations of keywords (MeSH): ‘*placenta accreta*’, ‘*placenta increta*’, ‘*placenta percreta*’, ‘*diagnosis*’, ‘*first trimester*’, ‘*pregnancy*’, and ‘*placenta accreta spectrum*’. Taking into account the relevance of ‘*cesarean scar pregnancy*’ in PAS disorders, it was used as an additional non-MeSH term. A grey-literature search was also performed for reducing publication bias. (Figure 1)

Figure 1. Systematic review flowchart



RESULTS

55 patients with a definitive histopathological diagnosis were reported. About 18 had a history of prior curettage and 47 of previous caesarean deliveries (CD). About 74.54% presented with miscarriage and ultrasound signs of caesarean scar pregnancy (CSP) were reported in 22.49%. Temporal sequence of diagnostic studies could be determined in 52 women, and among these, PAS disorders were defined through imaging techniques in 11 (21.15%) while surgical findings unveiled them in 15 (28.84%). Nonetheless, in half of the cases, the diagnosis was concluded only on histopathological samples.

DISCUSSION

The ultrasound is less used to diagnose PAS disorders in the first trimester than during the rest of pregnancy, having a sensitivity of 41% and a specificity of 88% in the first trimester². This is consistent with our study since the initial diagnosis of PAS disorders was generally based on histopathological reports, followed by intraoperative findings. Studies have been conducted on CSP as a precursor to PAS disorders³. Low implantation of the gestational sack along with a prior history of CD are considered indicators of CSP until proven otherwise³.

The systematic review by D’Antonio reported the low implantation of the gestational sack significantly increases the risk of PAS disorders, with a sensitivity of 44.4% and a specificity of 93.4%⁴. In consequence, transvaginal US evaluation during the first 5-7 weeks of pregnancy has been suggested in patients with CSP for PAS screening to reduce associated morbimortality by achieving an early diagnosis³.

CONCLUSIONS

This review shows that PAS disorders in the first trimester mostly occurred in the context of patients with known risk factors (caesarean scar) and/or miscarriage symptoms. Diagnosis through imaging modalities seems to be uncommon and half of the patients were only diagnosed based on histopathological findings. Therefore, there is a latent need for optimising the recognition of CSP and PAS ultrasonographical signs, which have been previously described by several authors, to implement ultrasound screening protocols for decreasing PAS-associated maternal morbidity

REFERENCES

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