

PREVALENCE OF COMORBIDITIES IN PATIENTS WITH RECURRENT PREGNANCY LOSS

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Background

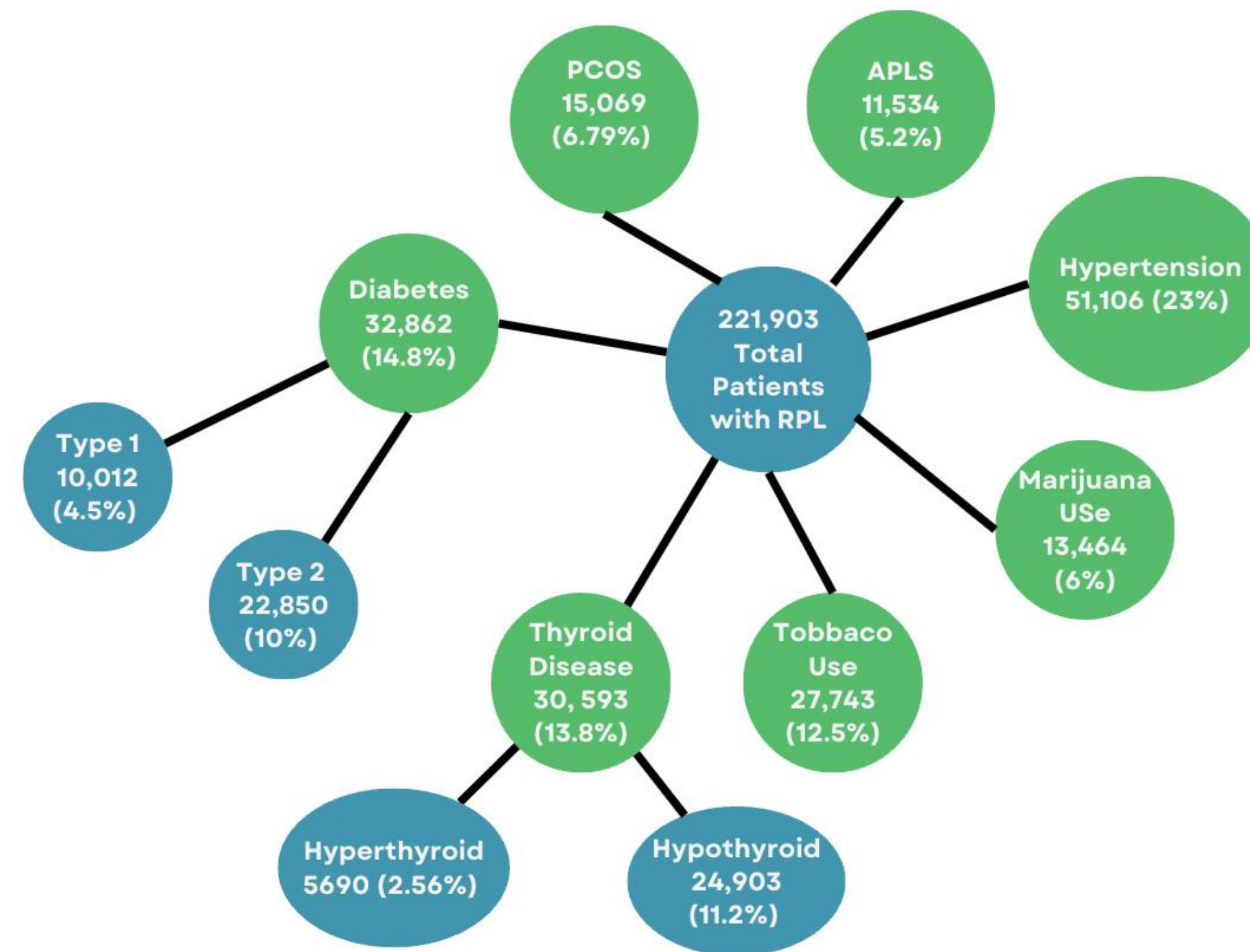
Recurrent pregnancy loss (RPL) is a diagnosis that affects approximately 5% of patients attempting pregnancy [1]. Counseling and evaluating these patients can be challenging as a cause is only found in half of patients [1]. Furthermore, it is unclear whether certain medical comorbidities contribute to the etiology of RPL. Current data on the prevalence of these medical comorbidities in patients with a diagnosis of RPL has been limited to small population studies. In particular, the prevalence of diabetes, hypertension, and PCOS in patients with RPL has rarely been described. The purpose of this study was to describe the prevalence of comorbidities in patients with a diagnosis of RPL in a large multiregional dataset.

Methods

This retrospective cohort study was conducted using the TriNetX research network involving a diverse group of national healthcare organizations. The database was queried from October 2015 to October 2024. Using the ICD-10 codes for RPL, 221,903 patients with an RPL diagnosis were identified. This subset of patients was then queried for tobacco use disorder, marijuana use, PCOS, diabetes, and hypertension using ICD-10 codes, in addition to more established contributors to RPL (e.g. thyroid disorders and antiphospholipid syndrome)

Results

Of the 221,903 patients with an RPL diagnosis, 27,743 had nicotine dependence (12.5%); 13,464 (6%) were marijuana users; 15,069 (6.79%) had concomitant PCOS; 10,012 (4.5%) had Type 1 Diabetes whereas 22,850 (10%) had Type 2 Diabetes, with the total number of diabetic patients being 32,862 (14.8%); and 51,106 (23%) had a diagnosis of hypertension. In comparison, 24,903 (11.2%) had hypothyroidism; 5690 (2.56%) had hyperthyroidism; and 11,534 (5.2%) had antiphospholipid syndrome.



Conclusion

Our data demonstrates a higher-than-expected prevalence of certain medical comorbidities in patients with a history of RPL. To our knowledge, this is the largest study to date describing the prevalence of medical comorbidities in the RPL population. Hypertension was the most prominent comorbidity in this population, present in nearly a quarter of patients with an RPL diagnosis. For comparison, the baseline prevalence of hypertension in reproductive aged women (20-44) in the United States (US) is 9.3% [2]. The percentage of diabetic patients in this cohort (14.8%) was also higher than the prevalence in reproductive aged women in the US (4.5%) [2]. Interestingly, antiphospholipid syndrome was present in only 5.2% of patients in this population, a lower percentage than previously reported in the literature. Additional studies are warranted to determine a link, if any, between these comorbidities and the diagnosis of RPL.

References

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- [2] Azeez, O., Kulkarni, A., Kuklina, E. V., Kim, S. Y., & Cox, S. (2019). Hypertension and Diabetes in Non-Pregnant Women of Reproductive Age in the United States. *Preventing Chronic Disease*, 16. <https://doi.org/10.5888/pcd16.190105>