In this article, the authors report on the incidence of future cardiometabolic disease in infertile men and hypothesize that this risk varies by sociodemographic factors. They analyzed outcomes extracted from a large United States’ insurance-based database of 76,343 men (18-50 years) diagnosed with the male infertility diagnosis code, and assessed by the International Classification of Diseases, 9th edition between 2003 and 2016. A total of 183,742 males that underwent vasectomy served as controls for the sole presumption to be fertile. The cardiometabolic health outcomes were assessed by International Classification of Diseases, 9th edition diagnosis codes for diabetes, hypertension, hyperlipidemia, and heart disease. The main finding of this study (after adjusting for variables such as age, follow-up time, obesity, smoking, and health care utilization) was that male infertility demonstrated a higher risk of hypertension (HR 1.15, CI 1.13-1.18), diabetes (HR 1.5, CI 1.44-1.57), hyperlipidemia (HR 1.18, CI 1.16-1.21), and heart disease (HR 1.34, CI 1.25-1.45) compared to controls (vasectomy cohort). Similar associations were observed across all education, income, racial, and geographic strata. Taken together, this analysis demonstrates that infertile men are at a higher risk of cardiometabolic disease in the years following a fertility evaluation regardless of race, ethnicity, education, income, or geographical region.

These findings further confirm that, while infertile men are at higher risk of cardiometabolic disease, infertility status transcends socioeconomic status or geographic location and formulates the concept that male infertility is either a potential risk factor or biomarker for later health issues across all sociodemographic strata. Hence, this is of special interest when counseling young men with infertility on lifestyle modifications to mitigate the risk of future morbidity.

Nevertheless, the authors acknowledge the inherited biases and limitations of designing and conducting such a study, utilizing insurance claims data with the apparent lack of granular data on metabolic risk factors, such as family history and physical activity, as well as longitudinal follow-up. Additionally, the extraction of diagnoses requires correct coding of diagnoses in insurance claims and can be subject to bias of the provider.

This published study will likely add to the emerging chorus to exploit male infertility as a risk factor not only for underlying genitourinary malignancies but also for cardiometabolic disease. As attractive as such finding appears, further data are necessary to confirm these findings and allow for a new horizon in the field of male infertility.

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