



# AB043. SOH23ABS\_051. Cardiovascular outcomes of parathyroidectomy in primary hyperparathyroidism: a systematic review and meta-analysis

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**Background:** There is conflicting evidence on the benefits of parathyroidectomy (PTx) in reducing the incidence of cardiovascular disease (CVD) in patients with primary hyperparathyroidism (PHPT). The aim of this study was to perform a systematic review and meta-analysis to investigate the impact of PTx in PHPT on cardiovascular outcomes.

**Methods:** A systematic review was performed as per PRISMA guidelines. Pre- and post-operative data were expressed as continuous outcomes, reported as mean differences (MDs), expressed with 95% confidence intervals (CIs) following estimation using the Mantel-Haenszel method.

**Results:** In total, there were 16 studies included in the meta-analysis with a combined total of 796 patients. Fourteen studies were prospective, one was retrospective and one was a randomised control trial. This analysis found a significant reduction in systolic blood pressure post-operatively ( $P=0.003$ ). The difference in diastolic blood pressure was not significant ( $P=0.050$ ). Fasting blood glucose levels were also significantly reduced after surgery ( $P<0.0001$ ). Echocardiographic values showed that left ventricular mass index was not significantly reduced ( $P=0.070$ ) and left ventricular ejection fraction was not affected ( $P=0.680$ ). Cholesterol levels were not impacted by

surgery.

**Conclusions:** This meta-analysis shows that PTx significantly improves systolic blood pressure and blood glucose levels in patients with PHPT.

**Keywords:** Primary hyperparathyroidism (PHPT); parathyroidectomy (PTx); parathyroid surgery; cardiovascular outcomes; meta-analysis

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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