PP-B-03

ADVANTAGE OF EARLY LOCALIZATION IMAGING STUDIES IN PATIENTS WITH NORMOCALCEMIC HYPERPARATHYROIDISM

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OBJECTIVES
Currently, there is no clear evidence regarding the benefits of surgery for patients with normocalcemic hyperparathyroidism (NC-HPT). The goal of this study was to determine the usefulness of imaging to guide surgical treatment in patients with NC-PHPT.

METHODOLOGY
This is a retrospective study that included 221 patients with hyperparathyroidism seen during 2004-2020. Laboratory and imaging studies were performed at our hospital.

RESULTS
Of the 221 patients, only eight (3.6%) patients met the criteria for NC-HPT. The majority were female, aged between 42 to 82 years, with PTH levels ranging from 78 to 380 pg/mL. All patients were normocalcemic (9.8 to 10.3 mg/dL). Two patients had a history of nephrolithiasis. Only one patient had nonspecific fatigue as a symptom, while the rest were asymptomatic. DXA scan done showed that three patients had osteoporosis and three had osteopenia. On neck ultrasound, only two patients had parathyroid findings. However, on Sestamibi parathyroid scan, four patients had tracer localization. Three patients underwent parathyroidectomy with histopathological confirmation of adenomas ranging from 120 to 261 mg in weight (normal 20-40 mg).

CONCLUSION
In patients with NC-HPT, medical therapy such as cinacalcet is not indicated. Although it has been suggested that NC-HPT may represent an early stage of PHPT, complications like osteoporosis and nephrolithiasis may still occur. Prompt and timely imaging studies in this subset of patients may facilitate early surgical treatment if warranted. Subsequently, the occurrence of hyperparathyroidism-related complications may be prevented.

PP-B-04

COMPARISON OF CARDIOVASCULAR EVENTS AMONG USERS OF DIFFERENT CLASSES OF ANTI-OSTEOPOROSIS MEDICATIONS

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OBJECTIVES
Anti-osteoporosis medications have been associated with the occurrence of cardiovascular events. Therefore, we aimed to investigate the cardiovascular safety of hormone replacement therapy (HRT), bisphosphonates, anti-RANKL, parathyroid hormone (PTH) analogues and romosozumab in patients with osteoporosis.

METHODOLOGY
We evaluated 77 trials including 106,982 patients comparing five classes of anti-osteoporosis drugs and a placebo. We initially performed a standard, random-effect, pairwise meta-analysis for cardiovascular disease (CVD) risk to gather the available direct evidence of each drug class. For every possible pairwise comparison, the association between treatment and outcomes was obtained using odds ratios (ORs). Statistical heterogeneity was assessed along with its 95% confidence intervals. Network meta-analysis was then used to compare different available treatment strategies within a single analytical framework in a Bayesian setting.

RESULTS
Patients on hormone therapy, bisphosphonates, romosozumab and PTH had no increased cardiovascular risk compared to placebo. Anti-RANKL use revealed a significantly higher risk of CVD than placebo with a risk ratio of 1.25 [95% CI 1.07-1.45]. The SUCRA ranking confirmed that the use of anti-RANKL conferred the highest risk for CVD in patients with osteoporosis. Specifically, there was a significantly higher risk of coronary artery disease, cerebrovascular disease, angina and transient ischemic accident (RR 1.26 [95% CI 1.01-1.58]).On the other hand, HRT demonstrated a higher risk of venous thromboembolic events (VTE) (RR 1.96 [95% CI 1.53-2.51]).

CONCLUSION
From our network meta-analysis, the use of anti-RANKL such as denosumab increased the risk of composite cardiovascular outcomes, while HRT increased the risk of VTE.