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Caught in a Holding Pattern: A Nationwide Decision Analysis Study for Primary Hyperparathyroidism

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Introduction

- Primary Hyperparathyroidism (PHPT) is only cured by surgery
- Referral to certain treatment is highly dependent on patient characteristics

Aim: To understand the factors that influence healthcare providers' decisions regarding PHPT management in order to better understand and optimize patient care.

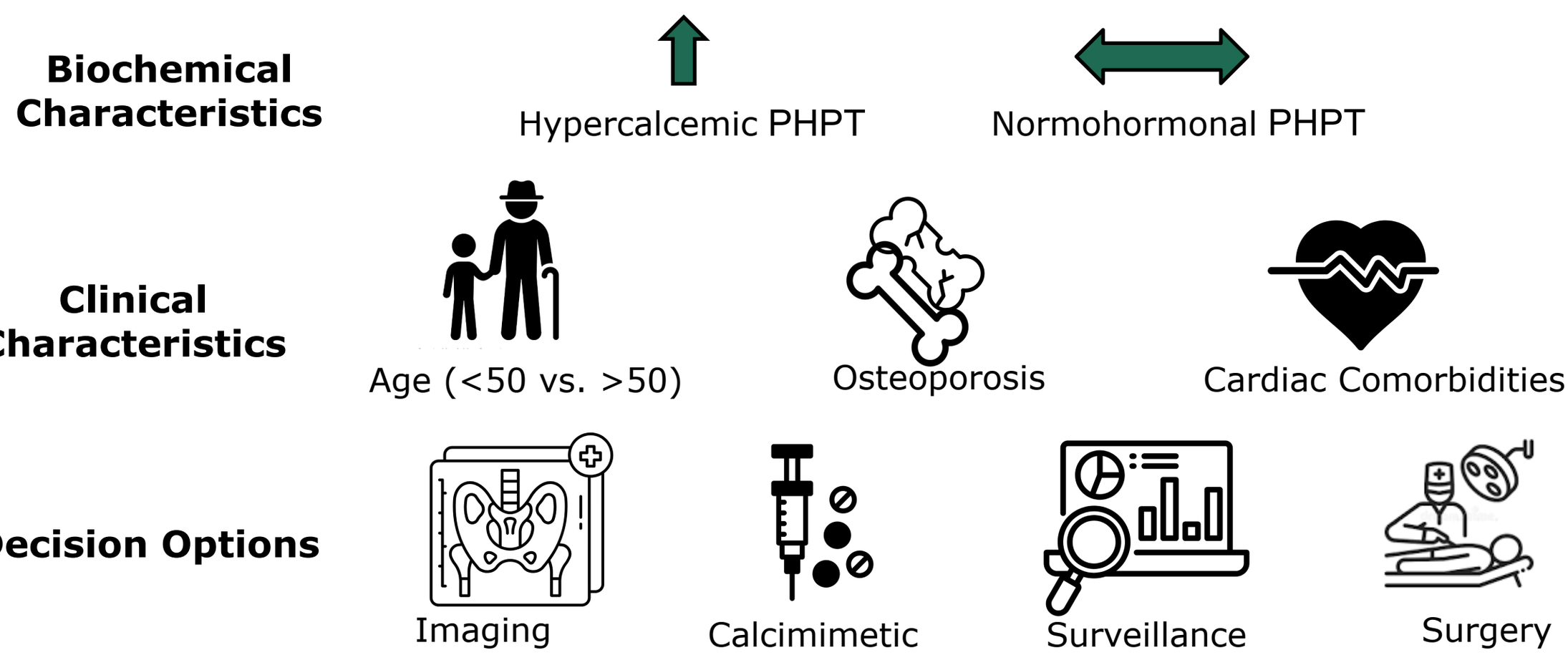
Materials and Methods

- Anonymous conjoint analysis online survey was distributed via email to physicians who treat parathyroid disease, both in academic and community-affiliated medical practices across all five geographical regions of the United States
    - Endocrinologist
    - General practitioners
    - Endocrine surgeons
    - Otolaryngologist

The survey consisted of 10 hypothetical patient scenarios, each featuring distinct clinical and biochemical characteristics.

Two question stems were included, each involving a female patient with either classic hypercalcemic HPT or NHpHPT and data confirming normal renal function and vitamin D levels, and elevated urine calcium levels.

All patients presented with subjective symptoms, such as joint pain and/or neurocognitive symptoms. To alter the question stems, individual factors were introduced, including age, presence or absence of osteoporosis, and the presence or absence of cardiac comorbidities



- Multinomial logistic regression was employed to investigate the preference of physicians for observation as opposed to various types of testing or intervention

Results

CHARACTERISTICS	OVERALL (N=65)
Gender	
Female	33 (50.8%)
Male	32 (49.2%)
Practice Duration	
<5 Years	16 (24.6%)
5-9 Years	10 (15.4%)
10-19 Years	17 (26.2%)
>20 Years	22 (33.8%)
Specialty	
Endocrine Surgery	23 (35.4%)
Endocrinology	39 (60%)
Otolaryngology	1 (1.5%)
General Medicine / Primary Care	2 (3.1%)
Practice Setting	
Academic	55 (84.6%)
Community	10 (15.4%)

Imaging versus Observation
- Age <50 (OR: 3.7, 95% CI: 1.6-8.4, p<0.01)
- Osteoporosis (OR: 3.2, 95% CI: 1.5-7.0, p<0.01)
- Classic Disease (OR: 6.4, 95% CI: 2.7-14.7, p<0.001)

Cinacalcet versus Observation
- Classic Disease (OR: 7.2, 95% CI: 3.2-16.2, p<0.001)
- Osteoporosis (OR: 3.2, 95% CI: 1.5-6.6, p<0.01)
- No cardiac comorbidities (OR: 0.4, 95% CI: 1.5-6.6, p<0.001)

Surgery versus Observation
- Endocrine surgery/ENT (OR: 13, 95% CI: 4.0-42.7, p<0.001)
- Age <50 (HR: 7.5, 95% CI: 4.4-12.8, p<0.001)
- Classic Disease (OR: 11.8, 95% CI: 5.7-24.5, p<0.001)
- Osteoporosis (OR: 3.9, 95% CI: 2.4-6.4, p<0.001)

Conclusion

- Certain patient characteristics, including age, disease severity, and presence of osteoporosis, significantly influence healthcare providers' decisions regarding PHPT management strategies.
- Understanding these determinants can enhance patient outcomes and facilitate informed decision-making, leading to improved care for individuals with PHPT.