

Outcome of Primary Hyperparathyroidism: Retrospective Tertiary Center Experience From Basrah, Iraq

Review began 07/24/2024

Review ended 07/28/2024

Published 07/31/2024

© Copyright 2024

Abdul Khaleq et al. This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

DOI: 10.7759/cureus.65901

Suha M. Abdul Khaleq¹, Hussein A. Nwayyir¹, Abbas A. Mansour¹

¹. Diabetes and Endocrinology, Faiha Specialized Diabetes, Endocrine and Metabolism Center (FDEMC) University of Basrah, Basrah, IRQ

Corresponding author: Suha M. Abdul Khaleq, dr.suha10@yahoo.com

Abstract

Background: Primary hyperparathyroidism is regarded as a common endocrine disorder that is biochemically identified and could be symptomatic or asymptomatic. A detailed history and a thorough evaluation with regular follow-ups are required until a definite diagnosis is made. The study aims to evaluate the characteristics of patients and the performance of a tertiary endocrine center in managing the disease in Basrah, Iraq.

Material and methods: A retrospective study was conducted at the Faiha Specialized Diabetes, Endocrine, and Metabolism Center in Basrah, southern Iraq, on 106 patients diagnosed with primary hyperparathyroidism between 2012 and 2023. The patients' general characteristics were assessed, and those who underwent parathyroidectomy were evaluated post-surgery, and the cure rate was determined.

Results: The mean age of presentation was 47.5 ± 14.6 years, with a median of 50 years. The highest occurrence is in the sixth decade. Females comprised 79 (75%) of the patients, and the female-to-male ratio was 3:1. Symptomatic patients were 84 (90%), 30 (70%) of the patients had nephrolithiasis, and 52 (68%) had osteoporosis. The cure rate was 15 (83%).

Conclusion: In our single-center study, the frequency of primary hyperparathyroidism has increased with time. The disease's highest occurrence was seen in the sixth decade. Females were substantially higher than males. Most patients were symptomatic. The cure rate was 83%.

Categories: Endocrinology/Diabetes/Metabolism, Internal Medicine, General Surgery

Keywords: cure rate, hyperparathyroidism, parathyroid surgery, hypercalcemia, parathyroidectomy, primary hyperparathyroidism

Introduction

Primary hyperparathyroidism (PHPT), a common endocrine condition characterized by hypercalcemia and high or inappropriately normal parathyroid hormone, is identified by biochemical tests [1]. There is growing recognition of normocalcemic PHPT as a less severe disease variant. The real incidence rate and frequency may be underestimated in this setting due to the underrecognition of milder forms of the condition [2].

Many epidemiological studies relied on patient referrals to secondary or tertiary health services. The reported prevalence of PHPT varies between 0.2% and 1.3% of the population worldwide, including the United States, Europe, Bahrain, and Korea [3]. The number of cases rises with age and despite that the disease can occur at any age, half of PHPT patients are postmenopausal women [1]. PHPT can manifest as symptomatic or without symptoms. Symptomatic individuals develop stones in the kidneys and osteoporotic fractures [4].

All patients should have their 25-hydroxy vitamin D levels measured since there is evidence that the disorder is more active in those who are vitamin D deficient or insufficient [5].

Parathyroid adenoma is the most common cause of primary hyperparathyroidism, whereas parathyroid carcinoma is rare and has an unfavorable outcome due to recurrence and metastasis. PHPT is caused by parathyroid hyperplasia in 10% of cases [6].

The only definite therapy for PHPT is parathyroid surgery [7]. Before surgery, localization methods assist in guiding the surgical strategy in patients with a biochemically proven disease diagnosis and in whom other diagnoses have been adequately excluded [8]. Neck ultrasonography (US), single photon emission computed tomography (SPECT), Tc-99m sestamibi imaging, magnetic resonance imaging (MRI), four-dimensional CT scan (4-D CT), and positron emission tomography in conjunction with CT scan are examples of non-invasive techniques that are employed [9]. Surgery should be done by a skilled parathyroid surgeon and is

How to cite this article

Abdul Khaleq S M, Nwayyir H A, Mansour A A (July 31, 2024) Outcome of Primary Hyperparathyroidism: Retrospective Tertiary Center Experience From Basrah, Iraq. Cureus 16(7): e65901. DOI 10.7759/cureus.65901