PRIMARY HYPERPARATHYROIDISM (PHPT): RETROSPECTIVE STUDY OF 272 PATIENTS PARATHYROIDECTOMIZED

Teresa Cavero, Florencio García-Martín, Natalia Melón, Sonsoles Guadalix*, Guillermo Martínez*, José Ignacio Martínez-Pueyo**, Federico Hawkins*, Manuel Praga. Servicio de Nefrología, *Endocrinología and **Cirugía General. Hospital Doce de Octubre. Universidad Complutense. Madrid. Spain.

Introduction

Primary Hyperparathyroidism (PHPT) is a disorder of one or more of parathyroid glands, leading to excess parathyroid hormone (PTH) secretion and hypercalcemia in the absence of significant renal dysfunction.

Parathyroidectomy provides the most effective treatment and potential cure in patients with PHPT.

Surgery indications are currently being reviewed.

Objective, patients and methods

The aim of this work was to analyze clinical and biological characteristics of the patients who underwent surgical intervention for PHPT in our hospital between January 1997 and June 2014.

A review of medical records of 272 patients with PHPT was carried out.

Parathyroidectomy rate was 38 patients/million/year

Laboratory values are expressed as median (P_{25}-P_{75})

Results

Characteristics of the total study group at diagnosis

	N = 272	range
Age (years)	59.6 ± 14	8 - 87
Gender female (%)	224 (82.4)	
Calcium (mg/dl)	11.4 (10.8 - 12)	9.1 - 17
Phosphate (mg/dl)	2.5 (2.2 – 2.8)	1.1 - 4
PTHi (pg/ml)	164 (117 – 226)	58 - 1104
Serum creatinine (mg/dl)	0.8 (0.7 – 0.9)	0.43 – 1.9
Symptomatic patients (%)	122 (45)	
Renal stones (%)	88 (32)	

Preoperative studies and surgical indications

	N (%)
LOCALIZATION DIAGNOSTIC *	
Ultrasound	171 / 249 (68.6)
Computed tomography	51 / 74 (69)
Sestamibi scintigraphy	242 / 264 (92)
SURGICAL INDICATIONS	
Clinical symptoms	92 (33.8)
Hypercalcemia (Ca > 11.2 mg/dl)	105 (38.6)
Age < 50 years	38 (14)
Osteoporosis/osteopenia	30 (11)
Glomerular filtration < 60 ml/min **	7 (2.6)

* Ratio between positive/total exploration
** Estimated by CKD-EPI

Histopathology and clinical characteristics

	Adenoma n = 257 (94.5%)	Hyperplasia n = 15 (4.5%)	p value
Age (years)	61 ± 13	41 ± 19	0.001
Gender female (%)	211 (82)	13 (87)	ns
Calcium (mg/dl)	11.4 (10.9 - 12)	10.9 (10 – 11.5)	0.023
Phosphate (mg/dl)	2.5 (2.2 – 2.8)	2.7 (2.3 – 3.2)	ns
PTHi (pg/ml)	167 (118 – 225)	131 (104 – 227)	ns
Symptomatic patients (%)	86 (33)	6 (40)	ns
Renal stones (%)	82 (32)	6 (40)	ns
Arterial hypertension (%)	110 (43)	3 (20)	0.082
MEN I	2 (0.7)	7 (47)	0.001
Recidive & persistence (%)	12 (4.7)	2 (13)	ns

Analytical evolution

	Basal	Post PTX	12 months
Calcium (mg/dl)	11.4 ± 0.9*	8.9 ± 0.8	9.5 ± 0.5*
Phosphate (mg/dl)	2.5 ± 0.5*	3.2 ± 0.5	3.3 ± 0.5
PTHi (pg/ml)	195 ± 134*	44.5 ± 28	46 ± 19
Serum creatinine (mg/dl)	0.81 ± 0.2*	0.84 ± 0.2	0.85 ± 0.2

PTX: Parathyroidectomy Laboratory values are expressed as mean ± sd
*p < 0.0001 vs post PTX and 12 months * p < 0.0001 vs post PTX

Conclusions

The asymptomatic disease was slightly more frequent in our study (55%).

The most frequent indication for parathyroidectomy were hypercalcemia and renal stones.

Sestamibi-scan showed a high rate accuracy in preoperative parathyroid gland localization.

PHPT is a treatable disorder with a high chance of success after surgery.

52 ERA
111--FP
G) Nephrolithiasis, divalent ions and divalent ions disorders.
Florencio García-Martín
DOI: 10.3252/pso.eu.52era.2015
ePosters supported by F. Hoffmann- La Roche Ltd.