DOI:

REZIDUALNI I RECIDIVANTNI HIPERPARATIROIDIZAM

RESIDUAL AND RECURRENT HYPERPARATHYROIDISM

Saša Dimić, Vladan Živaljević, Ivana Dimić
1 Hirurška klinika, KBC K. Mitrovica
2 Klinika za endokrinu hirurgiju, KC Srbije, Beograd

SAŽETAK

Uvod Komplikacije se javljaju u svim vrstama hirurgije, pa i u hirurgiji paratiroidnih žlezdi (PTŽ). O rezidualnom hiperparatiroidizmu (HPT) govori se onda kada je do ponovne hiperprodukcije paratiroidnog hormona (PTH) praćene hiperkalcemijom došlo odmah ili u toku prvih 6 meseci nakon operacije, dok je kod recidivantnog HPT od prethodne operacije do pojave HPT prošlo 6 ili više meseci.
Cilj Prezentacija rezultata hirurškog lečenja rezidualnog i recidivantnog HPT pacijenata operisanih u Klinici za endokrinu hirurgiju, KCS, Beograd.
Metode Sprovedena je retrospektivna studija koja je obuhvatila 30 pacijenata operisanih zbog rezidualnog ili recidivantnog HPT, u periodu od 2009. do 2020. godine, otkrivenih laboratorijskim analizama ili lokalizacionom dijagnostikom, a potvrđenih definitivnim patohistološkim (PH) nalazom. Podaci su dobijani uvidom u elekronsku bazu, istorijama bolesti i uvidom u definitvni PH nalaz. U studiji su analizirane sledeće varijable: pol, godine života, inicijalna operacija u sekundarnoj ustanovi, vreme proteklo od inicijalne operacije do reoperacije, lokalizaciona dijagnostika (UZ, scintigrafija), intraoperativni nalaz (adenom, hiperplazija, karcinom), lokalizacija PTŽ, udruženost sa operacijom štitaste žlezde, veličina, težina i volumen PTŽ, preoperativne i postoperativne vrednosti kalcijuma (Ca), fosfora (PO4) i PTH i njihovi međusobni odnosi, PH nalaz. Statističke hipoteze testirane su na nivou statističke značajnosti od 0,05.
Rezultati Rezidualni i recidivantni HPT su se češće javljali kod žena u odnosu na muškarce (4:1), sa prosečnom starošću 57,5±13,7 godina. Najzastupljeniji simptomi su od strane muskulo-skeletnog sistema (86,7%), a pacijenti su podvrgavani operaciji samo PTŽ (56,7%) ili i štitaste žlezde (43,3%). Prosečno vreme od inicijalne operacije do reoperacije kod rezidualnog HPT bilo je 5,1 mesec, dok je kod recidivantnog iznosilo 59,8 meseci. Prosečna vrednost PTH pre operacije iznosila je 506,3 pg/ml (opseg, 88,0-2030,0), postoperativno 88,9 pg/ml (opseg, 3,0-913,0)(p<0,001). Vrednosti Ca preoperativno bile su u rasponu od 2,0-3,4 mmol/l, sa prosečnom vrednošću 2,8mmol/l, postoperativno od 1,7-3,0 mmol/l, sa prosečnom vrednošću 2,4mmol/l (p<0,001). Prosečne vrednosti PO4 pre operacije bile su 0,9 mmol/l (0,4-2,5), postoperativno 1,1 mmol/l (0,5-2,0)(p=0,007). U normalnoj poziciji nalazilo se 80% žlezdi. Nalazi UZ i scintigrafije bili su u korelaciji sa intraoperativnim nalazom u 63,3%, odnosno 73,3% pacijenata. Najčešći uzroci rezidualnog ili recidivantnog HPT bili su adenom i hiperplazija (70%:30%), uz prosečnu težinu PTŽ 424,6 mg (95%CI, 145,9-703,3), veličinu 2,3 cm (95%CI, 2,0-2,5) i volumen 1274,0 mm3 (95%CI, 814,3-1733,8).
Zaključak Uprkos izuzetnom napretku u identifikaciji PTŽ, modalitetima preoperativne lokalizacione dijagnostike i hirurškom lečenju, rezidualni i recidivantni HPT se i dalje javljaju kao komplikacije nakon operacije HPT. Najsigurnije lečenje je uspešna inicijalna operacija. Poznavanje embriologije i anatomije paratiroidnih žlezdi i iskustvo hirurga su presudni za operativni uspeh tokom početne i reoperativne paratiroidne hirurške eksploracije. To podrazumeva i posedovanje operativne evidencije i histoloških izveštaja sa prethodnih operacija.
Ključne reči: rezidualni HPT, recidivantni HPT, paratiroidni hormon, kalcijum, fosfor.

ABSTRACT

Introduction Complications occur in all types of surgery, including parathyroid gland (PTG) surgery. Residual hyperparathyroidism (HPT) is referred to when the repeated hyperproduction of parathyroid hormone (PTH) accompanied by hypercalcemia occurred immediately or during the first 6 months after surgery, while in recurrent HPT, 6 or more months passed from the previous operation to the appearance of HPT.
Objective Presentation of the results of surgical treatment of residual and recurrent HPT patients operated on at the Clinic for Endocrine Surgery, KCS, Belgrade.
Methods A retrospective study was conducted that included 30 patients operated on for residual or recurrent HPT, in the period from 2009 to 2020, detected by laboratory analyzes or localization diagnostics, and confirmed by definitive pathohistological (PH) findings. The data was obtained by looking at the electronic database, medical histories and looking at the definitive PH report. The following variables were analyzed in the study: sex, age, initial surgery in a secondary institution, time elapsed from the initial operation to reoperation, localization diagnostics (US, scintigraphy), intraoperative findings (adenoma, hyperplasia, carcinoma), localization of PTG, association with thyroid gland surgery, size, weight and volume of PTG, preoperative and postoperative values of calcium (Ca), phosphorus (PO4) and PTH and their mutual relations, PH finding. Statistical hypotheses were tested at a statistical significance level of 0.05.
Results Residual and recurrent HPT occurred more often in women compared to men (4:1), with an average age of 57.5±13.7 years. The most common symptoms are from the musculoskeletal system (86.7%), and the patients underwent surgery only for the PTG (56.7%) or also for the thyroid gland (43.3%). The average time from initial surgery to reoperation in residual HPT was 5.1 months, while in recurrent HPT it was 59.8 months. The average PTH value before surgery was 506.3 pg/ml (range, 88.0-2030.0), postoperatively 88.9 pg/ml (range, 3.0-913.0)(p<0.001). Preoperative Ca values ranged from 2.0-3.4 mmol/l, with an average value of 2.8 mmol/l, postoperatively from 1.7-3.0 mmol/l, with an average value of 2.4 mmol/l (p<0.001). Average PO4 values before surgery were 0.9 mmol/l (0.4-2.5), postoperatively 1.1 mmol/l (0.5-2.0)(p=0.007). In their normal position were 80% of the glands. US and scintigraphy findings were correlated with intraoperative findings in 63.3% and 73.3% of patients, respectively. The most common causes of residual or recurrent HPT were adenoma and hyperplasia (70%:30%), with an average PTG weight of 424.6 mg (95%CI, 145.9-703.3), size of 2.3 cm (95%CI, 2.0-2.5), and volume of 1274.0 mm3 (95%CI, 814.3-1733.8).
Conclusion Despite remarkable progress in the identification of parathyroid glands, modalities of preoperative localization diagnostics and surgical treatment, residual and recurrent HPT still occur as complications after HPT surgery. The safest treatment is a successful initial operation. Knowledge of the embryology and anatomy of the parathyroid glands and the surgeon's experience are crucial for operative success during initial and reoperative parathyroid surgical exploration. This includes having operational records and histological reports from previous operations.
Key words: residual HPT, recurrent HPT, parathyroid hormone, calcium, phosphorus.