

Supplementary Table 1 Additive Table with collected cases of PHPT-induced AP during pregnancy

| Author | Age | Pregnancy | Previous deliveries | Pregnancy Week pancreatitis | Postpartum pancreatitis | amylase IU/L | Lipase IU/L | Ca Mmol/L | PH Mmol/L | PTH Pg/mL | surgical management | Mother death | Aborted | Complex delivery | Delivery week | Fetal death |
|------------------------|-----|-----------|---------------------|-----------------------------|-------------------------|--------------|-------------|-----------|-----------|-----------|---------------------|--------------|---------|------------------|---------------|-------------|
| Arnold, 2019 | 24 | 2 | 1 | 32 | 0 | 349 | 4603 | 3,30 | 0,50 | 165 | 0 | 0 | 0 | 0 | 42 | 0 |
| Bansal, 2020 | 31 | 1 | 1 | 24 | 0 | 2816 | 2816 | 3,10 | 0,70 | 112 | 0 | 0 | 0 | 0 | 38 | 0 |
| Bieliauskienė, 2023 | 31 | 2 | 1 | 13 | 0 | 1500 | 2390 | 3,50 | 0,60 | 302 | 0 | 0 | 0 | 0 | 36 | 0 |
| Boogorugu, 2020 | 27 | 2 | 0 | 26 | 0 | 370 | 917 | 3,40 | 0,90 | 111 | 0 | 0 | 0 | 1 | 30 | 0 |
| Bronsky, 1970 | 18 | 1 | 1 | 42 | 1 | 128 | 258 | 3,80 | 0,70 | 910 | 1 | 0 | 0 | 0 | 42 | 0 |
| Burks, 2017 | 31 | 3 | 2 | 11 | 0 | 129 | 123 | 3,10 | 0,50 | 103 | 0 | 0 | 0 | 0 | 36 | 0 |
| Chamarthi, 2011 | 39 | 2 | 0 | 32 | 0 | 833 | 2008 | 3,00 | 0,70 | 85 | 0 | 0 | 0 | 1 | 37 | 0 |
| Dahan, 2001 | 22 | 4 | 3 | 32 | 0 | 373 | 4110 | 3,50 | 1,00 | 348 | 0 | 0 | 0 | 0 | 36 | 0 |
| Dale, 2017 | 31 | 3 | 0 | 32 | 0 | 754 | 7235 | 2,50 | 0,70 | 122 | 0 | 0 | 0 | 0 | 33 | 0 |
| Dias Leite, 2020 | 40 | 1 | 0 | 27 | 0 | 584 | 584 | 4,50 | 0,70 | 616 | 0 | 0 | 0 | 0 | 27 | 0 |
| Dimarco, 2019 | 34 | 2 | 1 | 26 | 0 | 1500 | 2390 | 2,90 | 0,70 | 113 | 0 | 0 | 0 | 0 | 42 | 0 |
| Dimarco, 2019 | 29 | 2 | 1 | 26 | 0 | 1500 | 2390 | 3,40 | 0,70 | 189 | 0 | 0 | 0 | 0 | 42 | 0 |
| Dimarco, 2019 | 27 | 2 | 1 | 26 | 0 | 1500 | 2390 | 2,90 | 0,70 | 123 | 0 | 0 | 0 | 0 | 36 | 0 |
| Dinger, 2008 | 29 | 2 | 1 | 42 | 1 | 1500 | 2390 | 3,20 | 0,70 | 2490 | 0 | 0 | 0 | 0 | 36 | 0 |
| Fabrin, 1986 | 32 | 2 | 0 | 36 | 0 | 1500 | 2390 | 3,80 | 0,70 | 910 | 0 | 0 | 0 | 0 | 36 | 0 |
| Fernandez, 2006 | 30 | 1 | 1 | 12 | 0 | 529 | 529 | 3,70 | 0,70 | 273 | 0 | 0 | 0 | 0 | 42 | 0 |
| Garcia, 2007 | 37 | 2 | 1 | 33 | 0 | 2072 | 2072 | 2,90 | 0,80 | 107 | 0 | 0 | 0 | 0 | 36 | 0 |
| Gonzalo, 2008 | 38 | 1 | 1 | 33 | 0 | 2072 | 2072 | 3,50 | 0,70 | 114 | 1 | 0 | 0 | 0 | 33 | 0 |
| Han, 2018 | 29 | 2 | 1 | 35 | 0 | 334 | 3000 | 4,20 | 0,70 | 937 | 0 | 0 | 0 | 1 | 36 | 0 |
| Hess, 1980 | 25 | 1 | 0 | 31 | 0 | 7400 | 7400 | 3,60 | 0,60 | 910 | 0 | 0 | 0 | 1 | 36 | 0 |
| Hong, 2001 | 29 | 5 | 0 | 30 | 0 | 803 | 573 | 4,50 | 0,70 | 832 | 0 | 0 | 0 | 0 | 31 | 0 |
| Inabnet, 1996 | 27 | 1 | 1 | 11 | 0 | 490 | 5517 | 2,60 | 0,70 | 97 | 0 | 0 | 0 | 0 | 40 | 0 |
| Ito, 1985 | 27 | 2 | 1 | 26 | 0 | 3100 | 3100 | 3,20 | 0,50 | 1570 | 1 | 0 | 0 | 0 | 36 | 0 |
| Kalani, 2020 | 26 | 1 | 0 | 14 | 0 | 431 | 501 | 3,50 | 0,70 | 910 | 0 | 0 | 0 | 0 | 38 | 0 |
| Kawamata, 1987 | 25 | 2 | 1 | 33 | 0 | 1940 | 1940 | 4,20 | 0,70 | 2000 | 1 | 0 | 0 | 0 | 33 | 0 |
| Kongmalai, 2020 | 38 | 2 | 1 | 24 | 0 | 685 | 685 | 3,70 | 0,70 | 121 | 0 | 0 | 0 | 0 | 38 | 0 |
| Krysiak, 2011 | 35 | 4 | 0 | 8 | 0 | 825 | 980 | 3,20 | 0,70 | 130 | 0 | 0 | 0 | 0 | 38 | 0 |
| Leal Jacinto, 2011 | 31 | 2 | 1 | 20 | 0 | 1210 | 1362 | 4,90 | 0,70 | 115 | 0 | 0 | 0 | 0 | 36 | 0 |
| Lee, 2014. | 38 | 8 | 3 | 42 | 1 | 3014 | 621 | 4,50 | 0,70 | 508 | 1 | 0 | 0 | 0 | 37 | 0 |
| Levine, 1979 | 26 | 2 | 1 | 33 | 0 | 4065 | 4065 | 3,80 | 0,90 | 910 | 0 | 0 | 0 | 0 | 38 | 0 |
| Liu, 2016 | 33 | 1 | 0 | 31 | 0 | 1500 | 2390 | 3,80 | 0,70 | 179 | 0 | 0 | 0 | 0 | 31 | 0 |
| Moreno-Fernandez, 2006 | 30 | 1 | 0 | 12 | 0 | 210 | 210 | 4,00 | 0,80 | 273 | 0 | 0 | 0 | 0 | 42 | 0 |
| Morrison, 1996 | 24 | 2 | 1 | 26 | 0 | 1045 | 1045 | 3,30 | 0,70 | 110 | 0 | 0 | 0 | 0 | 36 | 0 |
| Musleh, 2023 | 31 | 4 | 3 | 30 | 0 | 1383 | 1383 | 2,90 | 0,40 | 701 | 0 | 0 | 0 | 0 | 42 | 0 |
| Rajala, 1987 | 29 | 1 | 0 | 36 | 0 | 2343 | 2343 | 3,10 | 0,70 | 219 | 1 | 0 | 0 | 0 | 36 | 0 |
| Richa, 2021 | 32 | 1 | 0 | 11 | 0 | 340 | 820 | 3,10 | 0,70 | 302 | 0 | 0 | 0 | 0 | 36 | 0 |
| Rizvi, 2008 | 22 | 2 | 2 | 20 | 0 | 220 | 220 | 3,10 | 0,70 | 105 | 0 | 0 | 0 | 0 | 37 | 0 |
| Sanghvi, 1996 | 27 | 2 | 1 | 25 | 0 | 1500 | 2390 | 3,00 | 1,00 | 3260 | 0 | 0 | 0 | 0 | 38 | 0 |
| Sebastian, 2020 | 24 | 1 | 0 | 28 | 0 | 1716 | 2450 | 3,20 | 0,70 | 223 | 0 | 0 | 0 | 0 | 39 | 0 |
| Shellenberger, 2005 | 21 | 1 | 1 | 30 | 0 | 1907 | 2026 | 3,50 | 0,70 | 258 | 0 | 0 | 0 | 0 | 42 | 0 |
| Suryanarayana, 2021 | 29 | 1 | 0 | 23 | 0 | 2920 | 1900 | 3,60 | 0,20 | 2500 | 0 | 0 | 0 | 0 | 39 | 0 |

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|-----------------|----|----|---|----|---|------|-------|------|------|-------|---|---|---|---|----|---|
| Thomason, 1981 | 44 | 4 | 2 | 36 | 0 | 2800 | 2800 | 3,20 | 0,70 | 910 | 0 | 0 | 0 | 0 | 36 | 0 |
| Thomason, 1981 | 29 | 1 | 1 | 36 | 0 | 2343 | 2343 | 3,10 | 0,70 | 219 | 1 | 0 | 0 | 0 | 36 | 0 |
| Tsai, 2021 | 31 | 2 | 1 | 15 | 0 | 1615 | 1609 | 3,30 | 0,40 | 490 | 0 | 0 | 0 | 0 | 37 | 0 |
| Warneke, 1988 | 27 | 2 | 0 | 19 | 0 | 627 | 1450 | 4,20 | 0,80 | 420 | 0 | 0 | 0 | 0 | 39 | 0 |
| Jibhkate, 2014 | 24 | 2 | 2 | 42 | 1 | 220 | 646 | 2,90 | 0,70 | 581 | 0 | 1 | 0 | 0 | 36 | 0 |
| Kondo, 1998 | 26 | 2 | 2 | 28 | 0 | 3320 | 3320 | 4,60 | 0,70 | 10000 | 1 | 1 | 0 | 0 | 28 | 0 |
| Rupprecht, 2017 | 38 | 2 | 1 | 26 | 0 | 1200 | 3600 | 2,10 | 0,70 | 1330 | 1 | 1 | 0 | 0 | 36 | 0 |
| Yang, 2019 | 24 | 1 | 0 | 37 | 0 | 2861 | 10394 | 3,10 | 0,90 | 500 | 1 | 1 | 0 | 0 | 37 | 0 |
| Clark, 1981 | 41 | 11 | 9 | 32 | 0 | 440 | 440 | 4,60 | 0,80 | 3659 | 0 | 0 | 0 | 1 | 34 | 1 |
| Kort, 1999 | 30 | 2 | 1 | 13 | 0 | 1415 | 1415 | 4,00 | 0,70 | 910 | 0 | 0 | 0 | 0 | 36 | 1 |
| Torii, 1989 | 28 | 2 | 1 | 20 | 0 | 2592 | 2592 | 3,50 | 0,70 | 3000 | 1 | 0 | 1 | 1 | 20 | 1 |
| Zhou, 2023 | 27 | 1 | 0 | 12 | 0 | 1113 | 8735 | 4,10 | 0,30 | 1914 | 0 | 0 | 0 | 0 | 42 | 1 |
| Soyannwo, 1968 | 28 | 1 | 1 | 16 | 0 | 1063 | 1063 | 4,80 | 0,70 | 910 | 0 | 1 | 1 | 1 | 17 | 1 |

References for Supplementary materials

1. **Arnold J**, Martínez W, Oksenberg S, Oksenberg D. Pancreatitis aguda por hipercalcemia en el embarazo. Caso clínico [Acute pancreatitis due to hypercalcemia during pregnancy. Report of one case]. Rev Med Chil 2019;147(8):1078-1081 [PMID: 31859975 DOI: 10.4067/S0034-98872019000801078]
2. **Bansal S**, Kaushik RM, Kaushik R, Modi S, Raghuvanshi S, Kusum A. Primary hyperparathyroidism presenting as severe hypercalcemia with acute pancreatitis in pregnancy. Gynecol Endocrinol 2020;36(5):469-472 [PMID: 31793366 DOI: 10.1080/09513590.2019.1698028]
3. **Bieliauskiene J**. Primary hyperparathyroidism in pregnancy: A case report. Endocrine Abstracts 2023;90 EP143 [DOI: 10.1530/endoabs.90.EP143]
4. **Boorugu HK**, Surapaneni T, Vadlamani H, Patel D, Yalamanchili S. Recurrent pancreatitis due to parathyroid adenoma in pregnancy. Indian J Case Reports 2020;6(5):277-279 [DOI:10.32677/ijcr.2020.v06.i05.021]
5. **Bronsky D**, Weisbery MG, Gross MC, Barton JJ. Hyperparathyroidism and Acute Postpartum Pancreatitis with Neonatal Tetany in the Child. Am J Med Sci 1970;260:161-164.
6. **Burks ML**, Harary S, Solorzano CC, Bao S. Primary hyperparathyroidism in a first trimester woman with hyperemesis gravidarum and pancreatitis. AACE Clinical Case Rep 2017;3:e31-e34
7. **Chamarthi B**, Greene MF, Dluhy RG. Clinical problem-solving. A problem in gestation. N Engl J Med 2011;365(9):843-8 [PMID: 21879903 DOI: 10.1056/NEJMcp0902919]
8. **Clark D**, Seeds JW, Cefalo RC. Hyperparathyroid crisis and pregnancy. Am J Obstet Gynecol 1981;140:840-842.

9. **Dahan M**, Chang RJ. Pancreatitis secondary to hyperparathyroidism during pregnancy. *Obstet Gynecol* 2001;98(5 Pt 2):923-925 [PMID: 11704205 DOI: 10.1016/s0029-7844(01)01434-x]
10. **Dale AG**, Holbrook BD, Sobel L, Rappaport VJ. Hyperparathyroidism In Pregnancy Leading to Pancreatitis and Preeclampsia with Severe Features. *Case Reports in Obstetrics and Gynecology* 2017;2017 Article ID 6061313, 3 pages
[DOI:10.1155/2017/6061313]
11. **Dinçer SI**, Demir A, Kara HV, Günlüoğlu MZ. Thoracoscopic removal of a maternal mediastinal ectopic parathyroid adenoma causing neonatal hypocalcemia: a case report. *Ann Thorac Cardiovasc Surg* 2008;14(5):325-8 [PMID: 18989251]
12. **Fabrin B**, Eldon K. Pregnancy complicated by concurrent hyperparathyroidism and pancreatitis. *Acta Obstet Gynecol Scand* 1986;65:651-652
13. **Moreno-Fernandez J**, Molina-Pueras MJ, Calanas-Contiente A, Benito-Lopez P, Sanchez De Puerta F, Carrasco-Rico S. Pancreatitis and Primary Hyperparathyroidism During Pregnancy. *Endocrinol Nutr* 2006; 53(1):56-59.
14. **Garcia E**, Ruiz E, Garcia-Hierro V, De La Maza L, Alvarez P, Pi J, Castillo L, Santos E. Severe acute pancreatitis in a pregnant woman with primary hyperparathyroidism. *Endocrinol Nutr* 2007;54(10):566-569.
15. **Gonzalo I**, Berzosa J, Diaz-Miguel V. Pancreatitis aguda en el embarazo. *Clin Invest Gin Obst* 2008;35(1):29-3
16. **Han ES**, Fritton K, Bacon P, Slodzinski MK, Argani C. Preterm Parturient with Polyhydramnios and Pancreatitis: Primary Presentation of Hyperparathyroidism. *Case Reports in Obstetrics and Gynecology* 2018;2018, Article ID 2091082, 4 pages [DOI:10.1155/2018/2091082]
17. **Hess HM**, Dickson J, Fox HE. Hyperfunctioning Parathyroid Carcinoma Presenting as Acute Pancreatitis in Pregnancy. *J Rep Med* 1980;25(2):83-87
18. **Hong MK**, Hsieh CT-C, Chen BH, Tu ST, Chou PH. Primary hyperparathyroidism an acute pancreatitis during the third trimester of pregnancy. *J Mater Fetal Med* 2001;10:214-218
19. **Inabnet WB**, Baldwin D, Daniel RO, Staren ED. Hyperparathyroidism and pancreatitis during pregnancy. *Surgery* 1996;119:710-713.
20. **Ito Y**, Ishizuka T, Miura K, Tanaka A, Tanaka M, Tachibana S. A case of primary hyperparathyroidism complicated with acute exacerbation of chronic pancreatitis during pregnancy. *Jpn J Gastroenterol* 1985;82(10):2651-2656.
21. **Jibhkate SN**, Valand AG, Ansari S, Bharambe BM. Hyperparathyroidism complicating pregnancy: A diagnostic challenge? *JPGM* 2014;60(3):329-331.
22. **Kalani KR**, Kathuria V, Pandit S, Bhadoria DP. A Curious Case of Acute Pancreatitis in Pregnancy. *J Clin Diagnostic Res* 2020;14(12): OD01-OD03 [DOI: 10.7860/JCDR/2020/45430.14280]

23. **Kawamada O**, Emoto M, Watanabe T, Makabe M, Nakamura J, Sasaki A, Kataoka K, Onaga E, Ide A, Araki H. A case report of acute pancreatitis and hyperparathyroidism in pregnancy (in Japanese with English abstract). *J Jpn Soc Clin Surg* 1987;48:562-566.
24. **Kondo J**, Nagai H, Kasahara K, Kanazawa K. Primary Hyperparathyroidism and Acute Pancreatitis During Pregnancy. *Int J Pancreatol* 1998;24(1):43-47.
25. **Kongmalai T**, Sirinvaravong S, Boonsripitayanon M, Uiprasertkul M, Chunharojrith P. Recurrent Acute Pancreatitis in Pregnancy Caused by Parathyroid Hyperplasia: A Case Report and Literature Review. *J Med Assoc Thai* 2020; 103 (9):952-959
26. **Kort KC**, Schiller HJ, Numann PJ. Hyperparathyroidism and Pregnancy. *Am J Surg* 1999;177:66–68.
27. **Krysiak R**, Wilk M, Okopien B. Recurrent pancreatitis induced by hyperparathyroidism in pregnancy. *Arch Gynecol Obstet* 2011;284:531–534 [DOI 10.1007/s00404-010-1668-x]
28. **Leal Jacinto LM**, Guardiola Fernandez A, Ramírez de Aguilar Aquino M. Adenoma paratiroideo gigante: presentación atípica en una mujer con 20 semanas de embarazo. *Anales de Radiología México* 2011;4:315-318
29. **Lee CC**, Chao AS, Chang YL, Peng HH, Wang TH, Chao A. Acute pancreatitis secondary to primary hyperparathyroidism in a postpartum patient: a case report and literature review. *Taiwan J Obstet Gynecol* 2014;53(2):252-5 [PMID: 25017280 DOI : 10.1016/j.tjog.2013.01.029]
30. **Dias Leite S**, Camara Ormonde C, Camara Ormonde M, Botelho Vasconcelos Raposo JT, Nunes Sampaio JI, da Silva Melo BC. Preeclampsia as an Inaugural Manifestation of Primary Hyperparathyroidism: A Case Report. *Rev Bras Ginecol Obstet* 2020;42(12):841-844.
31. **Levine G**, Tsin D, Risk A. Acute pancreatitis and hyperparathyroidism in pregnancy. *Obstetrics and Gynecol* 1979;54(2):246-248
32. **Liu Y**, Wang JN, Huang Y, Zhu YH, Liu RL, Xu CF, Li X. Acute pancreatitis and preeclampsia induced by parathyroid adenoma in pregnancy: a case report and literature review. *Int J Clin Exp Med* 2016;9(11):22652-22655
33. **Morrison CA**, Capps R, Hoshow N, Schreiber M. Simultaneous hyperparathyroidism and pancreatitis with cholelithiasis in the gravid patient. 1996
34. **Musleh A**, Shrateh ON, Abbadi K, Asbah M, Khader A. Successful surgical management of primary hyperparathyroidism during pregnancy: a rare case report. *Ann Med Surg* 2023;85:1150-1153 [DOI: 10.1097/MS9.0000000000000381]
35. **Rajala B**, Abbasi RA, Hutchinson HT, Taylor T. Acute pancreatitis and primary hyperparathyroidism in pregnancy: treatment of hypercalcemia with magnesium sulfate. *Obstetrics and Gynecol* 1987;70(3 part 2):460-462
36. **Richa CG**, Saad KJ, Chaaban AK, El Rawas MS. A rare case of hypercalcemia-induced pancreatitis in a first trimester pregnant woman. *Endocrinology, Diabetes & Metabolism Case Reports* 2018;2018(1): 6 pages [DOI: 10.1530/EDM-17-0175]
37. **Rizvi A**, Narasimhan K, Kene-Ewulu Lj. Complications and Management of Primary Hyperparathyroidism During Pregnancy. *Turk Jem* 2008;12:75-79

38. **Rupprecht H**, Reinfelder J, Turkoglu A. A case of severe acute necrotizing pancreatitis in a 38-year-old woman postpartum due to a parathyroid adenoma. *GMS Interdisciplinary Plastic and Reconstructive Surgery DGPW* 2017;6:4 pages
39. **Sanghvi KP**, Pinto J, Merchant RH. Neonatal Outcome in Maternal Hyperparathyroidism. *Indian Pediatrics* 1996;33:960-963
40. **Sebastian JJ**, Kavalakat AJ, Menon SK, Suresh MV, Aneesh MK. Pancreatitis Secondary to Primary Hyperparathyroidism Complicating Pregnancy. *Asian Journal of Case Reports in Surgery* 2020;3(2):322-327
41. **Shellenberger MJ**, Smith R, Schaefer D, Potteiger C. Pancreatitis In Pregnancy Secondary to Hyperparathyroidism and Hypercalcemia Treated by Parathyroidectomy. *Practical Gastroenterol* 2005;12:74-76.
42. **Soyannwo MAO**, Bell M, McGeown MG, Milliken TG. A case of acute hyperparathyroidism, with thyrotoxicosis and pancreatitis, presenting as hyperemesis gravidarum. *Postgrad med J* 1968;44:861-878
43. **Suryanarayana KM**, Veechika P. Atypical parathyroid adenoma in pregnancy: A rare case. *World J Endoc Surg* 2021;13(1):24–27
44. **Thomason JL**, Sampson MB, Farb HF, Spellacy WN. Pregnancy complicated by concurrent primary hyperparathyroidism and pancreatitis. *Obstetrics and Gynecol* 1981;57(6):34S-36S
45. **Torii A**, Suenaga H, Terashima Y, Okuda T, Kodera Y, Negita M, Taniguchi K, Yogo H. A case of primary hyperparathyroidism diagnosed through acute pancreatitis during pregnancy (in Japanese). *J Jpn Soc Clin Surg* 1988;49:1643.
46. **Tsai W-H**, Lee CC, Cheng SP, Zeng YH. Hyperparathyroidism presenting as hyperemesis and acute pancreatitis in pregnancy a case report. *Medicine* 2021;100:14(e25451) [PMID: [33832152](https://pubmed.ncbi.nlm.nih.gov/33832152/) DOI:[10.1097/MD.00000000000025451](https://doi.org/10.1097/MD.00000000000025451)]
47. **Warneke G**, Henning HV, Isemer FE, Muller HJ, Scheler F. Primärer Hyperparathyreoidismus mit Acuter Pankreatitis in der Schwangerschaft. *DMW* 1988;16:641-643
48. **Yang J**, Dong M-j, Chen F. A rare lethal case of severe acute necrotizing pancreatitis due to a parathyroid adenoma in a third-trimester pregnant woman. *MC Endocrine Disorders* 2019;19:82 [DOI: 10.1186/s12902-019-0409-9]
49. **Zhou Y**, Wang Q, Zou L, Wu X, Yang A. Parathyroid carcinoma-related severe acute pancreatitis during pregnancy: a case report and literature review. *Gastroenterology Report* 2023, 11, goac087 [DOI: 10.1093/gastro/goac087]
50. **DiMarco AN**, Meeran K, Christakis I, Sodhi V, Nelson-Piercy C, Tolley NS, Palazzo FF. Seventeen Cases of Primary Hyperparathyroidism in Pregnancy: A Call for Management Guidelines. *J Endocr Soc* 2019;3(5):1009-1021 [PMID: 31065618 PMCID: PMC6497920 DOI: 10.1210/js.2018-00340]

