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1. WHO Classification of Tumours Editorial Board. Female genital tumours [Internet]. Lyon (France): International Agency for Research on Cancer; 2020 [cited 2025 October 4th]. (WHO classification of tumours series, 5th ed.; vol. 4). Available from: <https://tumourclassification.iarc.who.int/chapters/34>. Individual entity section.
2. Laflamme P, Mansoori BK, Sazanova O, *et al.* Phospho-histone-H3 immunostaining for pulmonary carcinoids: impact on clinical appraisal, interobserver correlation, and diagnostic processing efficiency. *Hum Pathol.* 2020;106:74-81. doi:10.1016/j.humpath.2020.09.009
3. Travaglino A, Raffone A, Gencarelli A, *et al.* Stanford parameters stratify the risk of recurrence in gynecologic smooth muscle tumors of uncertain malignant potential. *APMIS. John Wiley and Sons Inc.* 2021;129(6):283-290. doi:10.1111/apm.13135
4. Tinelli A, D'Oria O, Civino E, *et al.* Smooth Muscle Tumor of Uncertain Malignant Potential (STUMP): A Comprehensive Multidisciplinary Update. *Medicina (Lithuania). Multidisciplinary Digital Publishing Institute (MDPI).* 2023;59(8). doi:10.3390/medicina59081371
5. Gadducci A, Zannoni GF. Uterine smooth muscle tumors of unknown malignant potential: A challenging question. *Gynecol Oncol. Academic Press Inc.* 2019;154(3):631-637. doi:10.1016/j.ygyno.2019.07.002
6. Prewett S, Horan G, Hatcher H, Ajithkumar T. Borderline Sarcomas and Smooth Muscle Tumours of Uncertain Malignant Potential. *Clin Oncol.* 2017;29(8):528-537. doi:10.1016/j.clon.2017.05.005
7. Liu HT, Wong CN, Wong CN, Liu FS. Uterine smooth muscle tumor of uncertain malignant potential: A review of current knowledge. *Taiwan J Obstet Gynecol. Elsevier Ltd.* 2022;61(6):935-940. doi:10.1016/j.tjog.2022.08.003
8. Rizzo A, Ricci AD, Saponara M, *et al.* Recurrent uterine smooth-muscle tumors of uncertain malignant potential (STUMP): State of the art. *Anticancer Res. International Institute of Anticancer Research.* 2020;40(3):1229-1238. doi:10.21873/anticanres.14064
9. Momeni-Boroujeni A, Chiang S. Uterine mesenchymal tumours: recent advances. *Histopathology. John Wiley and Sons Inc.* 2020;76(1):64-75. doi:10.1111/his.14008
10. Momeni-Boroujeni A, Yousefi E, Balakrishnan R, *et al.* Molecular-Based Immunohistochemical Algorithm for Uterine Leiomyosarcoma Diagnosis. *Modern Pathology.* 2023;36(4). doi:10.1016/j.modpat.2022.100084

11. Cui RR, Wright JD, Hou JY. Uterine leiomyosarcoma: a review of recent advances in molecular biology, clinical management and outcome. *BJOG. Blackwell Publishing Ltd.* 2017;124(7):1028-1037. doi:10.1111/1471-0528.14579
12. Chow KL, Tse KY, Cheung CL, et al. The mitosis-specific marker phosphohistone-H3 (PHH3) is an independent prognosticator in uterine smooth muscle tumours: an outcome-based study. *Histopathology.* 2017;70(5):746-755. doi:10.1111/his.13124
13. Robboy, Stanley J. Robboy's Pathology of the Female Reproductive Tract Second Edition. Elsevier. 2009
14. Gockley AA, Rauh-Hain JA, Del Carmen MG. Uterine leiomyosarcoma a review article. *International Journal of Gynecological Cancer. Lippincott Williams and Wilkins.* 2014;24(9):1538-1542. doi:10.1097/IGC.0000000000000290
15. Akbarzadeh-Jahromi M, Todarbary N, Aslani FS, Najib F, Zare M, Amirmoezi F. Uterine smooth muscle tumors of uncertain malignant potential: a retrospective evaluation of clinical pathology and immunohistochemistry features. *Surgical and Experimental Pathology.* 2024;7(1). doi:10.1186/s42047-024-00145-5
16. Wei JJ. Leiomyoma with nuclear atypia: Rare diseases that present a common diagnostic problem. *Semin Diagn Pathol. W.B. Saunders.* 2022;39(3):187-200. doi:10.1053/j.semdp.2022.01.006
17. Tabrizi AD, Ghोजazadeh M, Anvar HT, et al. Immunohistochemical profile of uterine leiomyoma with bizarre nuclei; Comparison with conventional leiomyoma, smooth muscle tumors of uncertain malignant potential and leiomyosarcoma. *Adv Pharm Bull.* 2015;5:683-687. doi:10.15171/apb.2015.093
18. Pranandari, L. R., Nugroho, H., & Aprilawati, D. Characteristics of uterine leiomyoma patients at the Department of Obstetrics and Gynecology, Dr. Soetomo Hospital, Surabaya, from January to December 2014. *Majalah Obstetri & Ginekologi,* 2018;25(3), <https://doi.org/10.20473/mog.V25I32017.81-85>
19. Guo E, Li C, Hu Y, Zhao K, Zheng Q, Wang L. Leiomyoma with Bizarre Nuclei: A Current Update. *Int J Womens Health. Dove Medical Press Ltd.* 2022;14:1641-1656. doi:10.2147/IJWH.S388278
20. Akad F, Filip B, Mocanu V, Akad M, Acatrinei C, Scripcariu V. Rare Case of Smooth Muscle Tumor of Uncertain Malignant Potential – Clinical Case. *Maedica - A Journal of Clinical Medicine.* 2021;16(2). doi:10.26574/maedica.2021.16.2.302

21. Han AKW, Hong K, Kim M, *et al.* Unexpected uterine smooth muscle tumor of uncertain malignant potential and sarcoma: A single center cohort study in South Korea. *Taiwan J Obstet Gynecol.* 2020;59(2):275-281. doi:10.1016/j.tjog.2020.01.017
22. Kwiatkowski J, Akpang N, Zaborowska L, Grzelak M, Lukasiewicz I, Ludwin A. Challenges Associated with Smooth Muscle Tumor of Uncertain Malignant Potential (STUMP) Management—A Case Report with Comprehensive Literature Review. *J Clin Med.* 2024;13(21). doi:10.3390/jcm13216443
23. Gupta M, Laury AL, Nucci MR, Quade BJ. Predictors of adverse outcome in uterine smooth muscle tumours of uncertain malignant potential (STUMP): a clinicopathological analysis of 22 cases with a proposal for the inclusion of additional histological parameters. *Histopathology.* 2018;73(2):284-298. doi:10.1111/his.13515
24. Hao Q, Dai C, Deng Y, *et al.* Pooling analysis on prognostic value of PHH3 expression in cancer patients. *Cancer Manag Res.* 2018;10:2279-2288. doi:10.2147/CMAR.S167569
25. Cree IA, Tan PH, Travis WD, *et al.* Counting mitoses: SI(ze) matters! *Modern Pathology.* Springer Nature. 2021;34(9):1651-1657. doi:10.1038/s41379-021-00825-7
26. Donovan TA, Moore FM, Bertram CA, *et al.* Mitotic Figures—Normal, Atypical, and Imposters: A Guide to Identification. *Vet Pathol.* SAGE Publications Inc. 2021;58(2):243-257. doi:10.1177/0300985820980049
27. Tracht J, Zhang K, Peker D. Grading and Prognostication of Neuroendocrine Tumors of the Pancreas: A Comparison Study of Ki67 and PHH3. *Journal of Histochemistry and Cytochemistry.* 2017;65(7):399-405. doi:10.1369/0022155417708186
28. Ladstein RG, Bachmann IM, Straume O, Akslen LA. Ki-67 expression is superior to mitotic count and novel proliferation markers PHH3, MCM4 and mitotin as a prognostic factor in thick cutaneous melanoma. *BMC Cancer.* 2010;10. doi:10.1186/1471-2407-10-140
29. Winther TL, Arnli MB, Salvesen Ø, Torp SH. Phosphohistone-H3 proliferation index is superior to mitotic index and MIB-1 expression as a predictor of recurrence in human meningiomas. *Am J Clin Pathol.* 2016;146(4):510-520. doi:10.1093/ajcp/aqw141
30. Kim JY, Sook Jeong H, Chung T, *et al.* *Oncotarget* 65064 www.impactjournals.com/Oncotarget The Value of Phosphohistone H3 as a Proliferation Marker for Evaluating Invasive Breast Cancers: A Comparative Study with Ki67. Vol 8. 2017. www.impactjournals.com/ncotarget/

31. Khieu ML, Broadwater DR, Aden JK, Coviello JM, Lynch DT, Hall JM. The Utility of Phosphohistone H3 (PHH3) in Follicular Lymphoma Grading: A Comparative Study with Ki-67 and H&E Mitotic Count. *Am J Clin Pathol*. 2019;151(6):542-550. doi:10.1093/ajcp/aqz003
32. Pang SJ, Li CC, Shen Y, Liu YZ, Shi YQ, Liu YX. Value of Counting Positive PHH3 Cells in the Diagnosis of Uterine Smooth Muscle Tumors. Vol 8. 2015. www.ijcep.com/
33. Veras E, Malpica A, Deavers MT, Silva EG. Mitosis-specific marker phospho-histone h3 in the assessment of mitotic index in uterine smooth muscle tumors: A pilot study. *International Journal of Gynecological Pathology*. 2009;28(4):316-321. doi:10.1097/PGP.0b013e318193df97
34. Donovan TA, Moore FM, Bertram CA, et al. Mitotic Figures—Normal, Atypical, and Imposters: A Guide to Identification. *Vet Pathol*. SAGE Publications Inc. 2021;58(2):243-257. doi:10.1177/0300985820980049
35. Mayerhofer, K., Lozanov, P., Bodner, K., Bodner-Adler, B., Kimberger, O. and Czerwenka, K. Ki-67 expression in patients with uterine leiomyomas, uterine smooth muscle tumors of uncertain malignant potential (STUMP) and uterine leiomyosarcomas (LMS). *Acta Obstetricia et Gynecologica Scandinavica*, 2004;83: 6349.2004.00502.x
36. Chen L, Yang B. Immunohistochemical analysis of p16, p53, and Ki-67 expression in uterine smooth muscle tumors. *International Journal of Gynecological Pathology*. 2008;27(3):326-332. doi:10.1097/PGP.0b013e31815ea7f5
37. Woo CG, Son SM, Kim EG, Lee OJ. pSlugS158 Immunohistochemistry is Useful in Grading Meningioma. *Int J Surg Pathol*. 2023;31(6):1021-1026. doi:10.1177/10668969221126121
38. Woo CG, Son SM, Lim YH, et al. pSlugS158 immunohistochemistry is a novel promising mitotic marker for FFPE samples: a pilot study. *Virchows Archiv*. 2022;480(2):449-457. doi:10.1007/s00428-021-03201-7
39. Ibuki Y, Toyooka T, Zhao X, Yoshida I. Cigarette Sidestream Smoke Induces Histone H3 Phosphorylation via JNK and PI3K/Akt Pathways, Leading to the Expression of Proto-Oncogenes. <http://carcin.oxfordjournals.org/>
40. Li B, Huang G, Zhang X, et al. Increased phosphorylation of histone H3 at serine 10 is involved in Epstein-Barr virus latent membrane protein-1-induced carcinogenesis of nasopharyngeal carcinoma. *BMC Cancer*. 2013;13. doi:10.1186/1471-2407-13-124
41. Chadee DN, Hendzel MJ, Tylipki CP, et al. Increased Ser-10 phosphorylation of histone H3 in mitogen-stimulated and oncogene-

- transformed mouse fibroblasts. *Journal of Biological Chemistry*. 1999;274(35):24914-24920. doi:10.1074/jbc.274.35.24914
42. Choi HS, Choi Y, Cho YY, et al. *Phosphorylation of Histone H3 at Serine 10 Is Indispensable for Neoplastic Cell Transformation*.
 43. Hao Q, Dai C, Deng Y, et al. Pooling analysis on prognostic value of PHH3 expression in cancer patients. *Cancer Manag Res*. 2018;10:2279-2288. doi:10.2147/CMAR.S167569
 44. Baranov VS, Osinovskaya NS, Yarmolinskaya MI. Pathogenomics of uterine fibroids development. *Int J Mol Sci. MDPI AG*. 2019;20(24). doi:10.3390/ijms20246151
 45. Commandeur AE, Styer AK, Teixeira JM. Epidemiological and genetic clues for molecular mechanisms involved in uterine leiomyoma development and growth. *Hum Reprod Update*. 2015;21(5):593-615. doi:10.1093/humupd/dmv030
 46. Bulun SE, Yin P, Wei JJ, et al. Uterine Fibroids. *Physiol Rev. American Physiological Society*. 2025;105(4):1947-1988. doi:10.1152/physrev.00010.2024
 47. Vilos GA, Allaire C, Laberge PY, et al. The Management of Uterine Leiomyomas. *Journal of Obstetrics and Gynaecology Canada*. 2015;37(2):157-178. doi:10.1016/S1701-2163(15)30338-8
 48. Rizzo A, Ricci AD, Saponara M, et al. Recurrent uterine smooth-muscle tumors of uncertain malignant potential (STUMP): State of the art. *Anticancer Res. International Institute of Anticancer Research*. 2020;40(3):1229-1238. doi:10.21873/anticancer.14064
 49. Bucuri CE, Ciortea R, Malutan AM, et al. Smooth Muscle Tumor of Uncertain Malignant Potential (STUMP): A Systematic Review of the Literature in the Last 20 Years. *Current Oncology*. 2024;31(9):5242-5254. doi:10.3390/curroncol31090388
 50. Croce S, Chibon F. Molecular prognostication of uterine smooth muscle neoplasms: From CGH array to CINSARC signature and beyond. *Genes Chromosomes Cancer. Blackwell Publishing Inc*. 2021;60(3):129-137. doi:10.1002/gcc.22906
 51. Khamaiseh S, Koivisto-Korander R, Schreiber N, et al. Transcriptome profiling of uterine leiomyosarcomas identifies a leiomyoma-like expression pattern that indicates better survival. *BJC Reports*. 2025;3(1). doi:10.1038/s44276-025-00190-x
 52. Sparić R, Andjić M, Babović I, et al. Molecular Insights in Uterine Leiomyosarcoma: A Systematic Review. *Int J Mol Sci. MDPI*. 2022;23(17). doi:10.3390/ijms23179728

53. Di Giuseppe J, Grelloni C, Giuliani L, Carpini GD, Giannella L, Ciavattini A. Recurrence of Uterine Smooth Muscle Tumor of Uncertain Malignant Potential: A Systematic Review of the Literature. *Cancers (Basel)*. MDPI. 2022;14(9). doi:10.3390/cancers14092323
54. Zheng YY, Liu XB, Mao YY, Lin MH. *Smooth Muscle Tumor of Uncertain Malignant Potential (STUMP): A Clinicopathologic Analysis of 26 Cases*. Vol 13. 2020. www.ijcep.com/
55. DeMulder D, Ascher SM. Uterine leiomyosarcoma: Can MRI differentiate leiomyosarcoma from benign leiomyoma before treatment? In: *American Journal of Roentgenology*. Vol 211. American Roentgen Ray Society; 2018:1405-1415. doi:10.2214/AJR.17.19234
56. Atkins KA, Arronte N, Darus CJ, Rice LW. *The Use of P16 in Enhancing the Histologic Classification of Uterine Smooth Muscle Tumors*. 2007.
57. Guntupalli SR, Ramirez PT, Anderson ML, Milam MR, Bodurka DC, Malpica A. Uterine smooth muscle tumor of uncertain malignant potential: A retrospective analysis. *Gynecol Oncol*. 2009;113(3):324-326. doi:10.1016/j.ygyno.2009.02.020
58. Andrés-Sánchez N, Fisher D, Krasinska L. Physiological functions and roles in cancer of the proliferation marker Ki-67. *J Cell Sci. Company of Biologists Ltd*. 2022;135(11). doi:10.1242/jcs.258932
59. Zhao WY, Xu J, Wang M, et al. *Prognostic Value of Ki67 Index in Gastrointestinal Stromal Tumors*. Vol 7. 2014. www.ijcep.com/
60. Sun X, Kaufman PD. Ki-67: more than a proliferation marker. *Chromosoma. Springer Science and Business Media Deutschland GmbH*. 2018;127(2):175-186. doi:10.1007/s00412-018-0659-8
61. Pelosi G, Travis WD. Head-to-head: Should Ki67 proliferation index be included in the formal classification of pulmonary neuroendocrine neoplasms? *Histopathology. John Wiley and Sons Inc*. 2024;85(4):535-548. doi:10.1111/his.15206
62. Huang W, Nebiolo C, Esbona K, Hu R, Lloyd R. Ki67 index and mitotic count: Correlation and variables affecting the accuracy of the quantification in endocrine/neuroendocrine tumors. *Ann Diagn Pathol*. 2020;48. doi:10.1016/j.anndiagpath.2020.151586
63. Travaglini A, Raffone A, Gencarelli A, et al. p53, p16 and ki67 as immunohistochemical prognostic markers in uterine smooth muscle tumors of uncertain malignant potential (STUMP). *Pathol Res Pract*. 2021;226. doi:10.1016/j.prp.2021.153592
64. Daniela Stănescu A, Nistor E, Sajin M, Emilian Stepan A. Immunohistochemical analysis in the diagnosis of uterine myometrial

smooth muscle tumors. Rom J Morphol Embryol. 2014;55(3):1129-1136. <http://www.rjme.ro/>

65. Kumar, Vinay. Robbins Basic Pathology Tenth Edition. Elsevier. 2018.
66. Chiaravalli, A.M. Phosphohistone 3 (PHH3). In: van Krieken, J. (eds) Encyclopedia of Pathology. Encyclopedia of Pathology. Springer, Cham. 2020. https://doi.org/10.1007/978-3-319-28845-1_5095-1
67. Nowak SJ, Corces VG. Phosphorylation of histone H3: A balancing act between chromosome condensation and transcriptional activation. *Trends in Genetics*. 2004;20(4):214-220. doi:10.1016/j.tig.2004.02.007
68. Dong Z, Bode AM. The role of histone H3 phosphorylation (Ser10 and Ser28) in cell growth and cell transformation. In: *Molecular Carcinogenesis*. Vol 45. 2006:416-421. doi:10.1002/mc.20220
69. Rastogi S, Aldosary S, Saeedan AS, Ansari MN, Singh M, Kaithwas G. NF- κ B mediated regulation of tumor cell proliferation in hypoxic microenvironment. *Front Pharmacol. Frontiers Media S.A.* 2023;14. doi:10.3389/fphar.2023.1108915
70. Hans F, Dimitrov S. *Histone H3 Phosphorylation and Cell Division*. Vol 20. 2001. www.nature.com/onc
71. Takazawa A, Yoshimura Y, Okamoto M, *et al.* The usefulness of immunohistochemistry for phosphohistone H3 as a prognostic factor in myxoid liposarcoma. *Sci Rep*. 2023;13(1). doi:10.1038/s41598-023-31896-y
72. El Andaloussi A, Al-Hendy A, Ismail N, Boyer TG, Halder SK. Introduction of Somatic Mutation in MED12 Induces Wnt4/ β -Catenin and Disrupts Autophagy in Human Uterine Myometrial Cell. *Reproductive Sciences*. 2020;27(3):823-832. doi:10.1007/s43032-019-00084-7
73. Hernández Borrero LJ, El-Deiry WS. Tumor suppressor p53: Biology, signaling pathways, and therapeutic targeting. *Biochim Biophys Acta Rev Cancer. Elsevier B.V.* 2021;1876(1). doi:10.1016/j.bbcan.2021.188556
74. Huo L, Wang D, Wang W, *et al.* Oncologic and Reproductive Outcomes of Uterine Smooth Muscle Tumor of Uncertain Malignant Potential: A Single Center Retrospective Study of 67 Cases. *Front Oncol*. 2020;10. doi:10.3389/fonc.2020.00647
75. Khristian E, Inderiati D. Sitohistoteknologi. Pusat Pendidikan Sumber Daya Kesehatan Kementerian Kesehatan Republik Indonesia. 2017.
76. Martucci C, Crocoli A, Persano G, *et al.* Uterine leiomyoma in pediatric population: A case report and review of the literature. *Front Pediatr*. 2022;10. doi:10.3389/fped.2022.1020072

77. Bosoteanu M, Deacu M, Voda RI, *et al.* Five-Year Retrospective Study of Uterine STUMP and Leiomyosarcoma. *Clin Pract.* 2022;12(6):897-907. doi:10.3390/clinpract12060094
78. Ariani Y, Mulyani H, Hilbertina N, *et al.* The Large-Mass Phenotype of Uterine Smooth Muscle Tumor of Uncertain Malignant Potential (STUMP): A Clinicopathological Analysis of 37 Cases in Indonesia Using WHO 2021 and Modified Stanford Criteria. *Bioscientia Medicina : Journal of Biomedicine and Translational Research.* 2026;10(4):1535-1546. doi:10.37275/bsm.v10i4.1565
79. Liang Y, Zhang X, Chen X, Lü W. *Diagnostic Value of Progesterone Receptor, P16, P53 and PHH3 Expression in Uterine Atypical Leiomyoma.* Vol 8. 2015. www.ijcep.com/

