Phyllodes Tumor

Note: Consider Clinical Trials as treatment options for eligible patients.

PATIENT PRESENTATION

Clinical suspicion of phyllodes tumor:
- Palpable mass
- Rapid growth
- Imaging with ultrasound suggestive of fibroadenoma except for size (> 2 cm) and/or history of rapid growth

INITIAL EVALUATION

- History and physical exam
- Ultrasound
- Diagnostic bilateral mammography for women age ≥ 30 years
- Lifestyle risk assessment[1]
- Core needle biopsy[2]
- Discuss Goal Concordant Care (GCC) with patient or if clinically indicated, with Patient Representative[3]

TREATMENT/FOLLOW UP

Fibroadenoma → Close clinical follow-up

Benign or borderline phyllodes tumor → Wide excision[4] without axillary staging → Review final pathology
- Benign or borderline → See Page 2 for Surveillance
- Malignant phyllodes[5] → See Breast Sarcoma algorithm

Fibroepithelial lesion or indeterminate pathology[6] → Excisional biopsy[7] → Review final pathology
- Borderline phyllodes → Wide excision[4] without axillary staging
- Fibroadenoma and benign phyllodes tumors (wide excision not needed) → 6-month follow up ultrasound
  - If no growth, observe
  - If growth, wide excision with follow up as indicated
- Malignant phyllodes[5] → See Breast Sarcoma algorithm

Malignant phyllodes[5] → See Breast Sarcoma algorithm

Invasive or in situ breast cancer → See Breast Cancer - Invasive Stage I-III or Breast Cancer- Ductal Carcinoma in Situ (DCIS) algorithms

[1] See Physical Activity, Nutrition, and Tobacco Cessation Treatment algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

[2] Fine needle aspiration will not distinguish fibroadenoma from phyllodes tumor in most cases. In general, core needle biopsy is the preferred method for diagnostic biopsy.

[3] GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

[4] There is no high level evidence to support a margin width of at least 10 mm and an ideal margin width remains to be determined. Re-excision may need to be considered in relation to factors such as tumor characteristics, size, and cosmesis. For benign pathology, re-excision of a negative margin is not recommended regardless of margin width. See Suggested Readings for updated information.

[5] Obtain molecular sequencing if patient is eligible for clinical trials. For patients with malignant phyllodes tumor or stromal overgrowth on pathology review, referral to a multidisciplinary sarcoma center is appropriate. Refer to Breast Sarcoma algorithm.

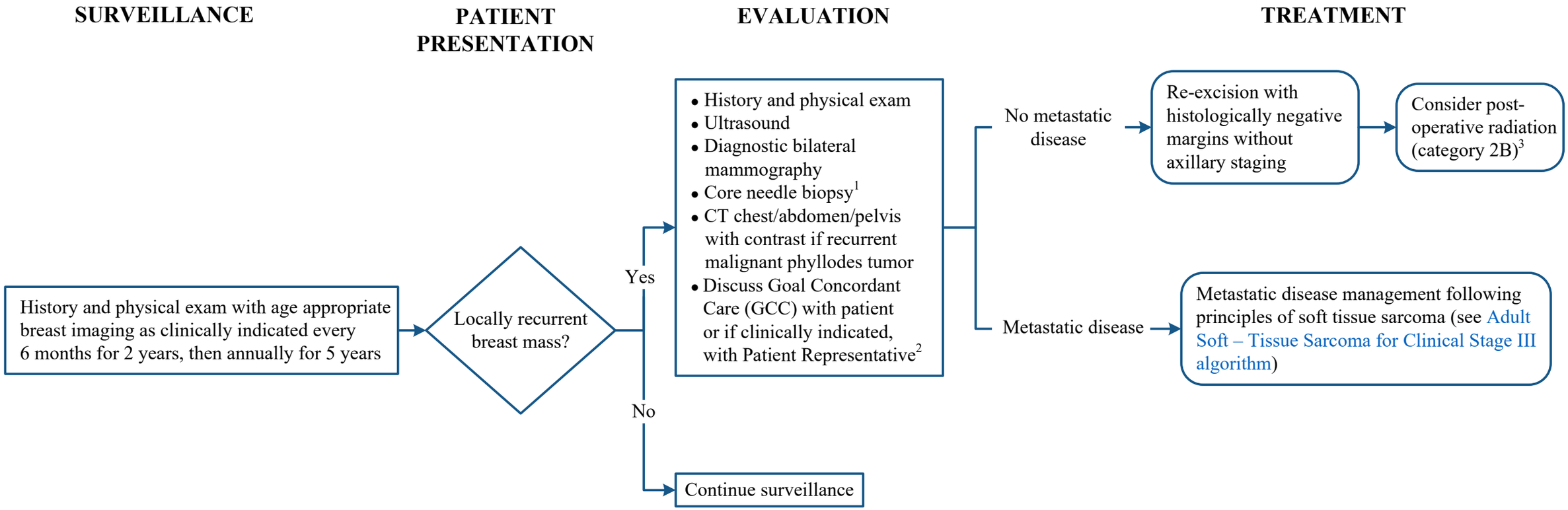
[6] Recommend review by pathologist experienced in phyllodes tumor and to correlate with imaging findings and physical examination. Core biopsy may not provide definitive evaluation (tumor heterogeneity and inability to assess for infiltrating margins). Cases are discussed at the Multidisciplinary Clinical Management Conference (CMC) for Benign Breast Lesions for management recommendations.

[7] Excisional biopsy if recommended at CMC. Excisional biopsy includes complete mass removal, but without the intent of obtaining widely negative surgical margins.

Department of Clinical Effectiveness V10
Approved by Executive Committee of the Medical Staff on 10/17/2023

Phyllodes Tumor

Note: Consider Clinical Trials as treatment options for eligible patients.



[1] Fine needle aspiration will not distinguish fibroadenoma from phyllodes tumor in most cases. In general, core needle biopsy is the preferred method for diagnostic biopsy.

[2] GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

[3] There is no prospective randomized data supporting the use of radiation treatment with phyllodes tumor. However, in the setting where additional recurrence would create significant morbidity (*e.g.*, chest wall recurrence following salvage mastectomy) radiation therapy may be considered, following the same principles that are applied to the treatment of soft tissue sarcoma. Radiation therapy is considered for malignant phyllodes tumor after wide local excision lesions over 2 cm or after mastectomy for lesions over 5 cm based on the retrospective review of 478 patients analyzed by Pezner, *et al*., 2008.

Department of Clinical Effectiveness V10
Approved by Executive Committee of the Medical Staff on 10/17/2023

SUGGESTED READINGS

Boland, P. A., Ali Beegan, A., Stokes, M., Kell, M. R., Barry, J. M., O'Brien, A., & Walsh, S. M. (2021). Management and outcomes of phyllodes tumours - 10 year experience. *Breast Disease*, 10.3233/BD-201059. Advance online publication. doi:10.3233/BD-201059

Lu, Y., Chen, Y., Zhu, L., Cartwright, P., Song, E., Jacobs, L., & Chen, K. (2019). Local recurrence of benign, borderline, and malignant Phyllodes tumors of the breast: A systematic review and meta-analysis. *Annals of Surgical Oncology*, *26*(5), 1263–1275. doi:10.1245/s10434-018-07134-5

MD Anderson Institutional Policy #CLN1202 - Advance Care Planning Policy. Advance Care Planning (ACP) Conversation Workflow (ATT1925)

National Comprehensive Cancer Network. (2023). *Breast Cancer* (NCCN Guideline. Version 3.2023). Retrieved from https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf

Neron, M., Sajous, C., Thezenas, S., Piperno-Neumann, S., Reyal, F., Laé, M., … French Sarcoma Group (GSF-GETO). (2020). Surgical margins and adjuvant therapies in malignant Phyllodes tumors of the breast: A multicenter retrospective study. *Annals of Surgical Oncology*, *27*(6), 1818–1827. doi:10.1245/s10434-020-08217-y

Pezner, R. D., Schultheiss, T. E., & Paz, I. B. (2008). Malignant phyllodes tumor of the breast: Local control rates with surgery alone. *International Journal of Radiation Oncology, Biology, Physics, 71*(3), 710-713. doi:10.1016/j.ijrobp.2007.10.051

Rosenberger, L. H., Thomas, S. M., Nimbkar, S. N., Hieken, T. J., Ludwig, K. K., Jacobs, L. K., … Jakub, J. W. (2021). Contemporary multi-institutional cohort of 550 cases of Phyllodes tumors (2007-2017) demonstrates a need for more individualized margin guidelines. *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*, *39*(3), 178–189. doi:10.1200/JCO.20.02647

Sars, C., Sackey, H., Frisell, J., Dickman, P. W., Karlsson, F., Kindts, I., … Lindqvist, E. K. (2023). Current clinical practice in the management of phyllodes tumors of the breast: An international cross-sectional study among surgeons and oncologists. *Breast Cancer Research and Treatment, 199*(2), 293-304. doi:10.1007/s10549-023-06896-1

Toussaint, A., Piaget-Rossel, R., Stormacq, C., Mathevet, P., Lepigeon, K., & Taffé, P. (2021). Width of margins in phyllodes tumors of the breast: The controversy drags on? -A systematic review and meta-analysis. *Breast Cancer Research and Treatment*, 1*85*(1), 21–37. doi:10.1007/s10549-020-05924-8

DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Breast Center providers at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

Core Development Team Leads

Isabelle Bedrosian, MD (Breast Surgical Oncology)
Ashleigh Guadagnolo, MD, MPH (Radiation Oncology)
Kelly K. Hunt, MD (Breast Surgical Oncology)
Henry M. Kuerer MD, PhD (Breast Surgical Oncology)
Melissa P. Mitchell, MD (Radiation Oncology)
Debu Tripathy, MD (Breast Medical Oncology)

Workgroup Members

Constance Albarracin, MD (Anatomical Pathology)
Dejka M. Araujo, MD (Sarcoma Medical Oncology)
Elsa Arribas, MD (Diag Rad – Breast Imaging)
Banu K. Arun, MD (Breast Medical Oncology)
Robert C. Bast Jr., MD (Translational Research)
Robert S. Benjamin, MD (Sarcoma Medical Oncology)
Therese Bevers, MD (Cancer Prevention)
Daniel J. Booser, MD (Breast Medical Oncology)
Abenaa Brewster, MD (Clinical Cancer Prevention)
Aman U. Buzdar, MD (Clinical Research)
Abigail S. Caudle, MD (Breast Surgical Oncology)
Sarah M. DeSnyder, MD (Breast Surgical Oncology)
Mark J. Dryden, MD (Diag Rad – Breast Imaging)
Olga N. Fleckenstein, BS♦
Sharon H. Giordano, MD (Health Svcs Research – Clinical)
Karen Hoffman, MD (Radiation Oncology)
Gabriel N. Hortobagyi, MD (Breast Medical Oncology)
Rosa F. Hwang, MD (Breast Surgical Oncology)
Nuhad K. Ibrahim, MD (Breast Medical Oncology)
Kimberly B. Koenig, MD (Breast Medical Oncology)
Savitri Krishnamurthy, MD (Pathology Admin)
Deanna L. Lane, MD (Diag Rad – Breast Imaging)
Huong Carisa Le-Petross, MD (Diag Rad – Breast Imaging)
Heather Lillemoe, MD (Breast and Sarcoma Surgical Oncology)
Jennifer Litton, MD (Breast Medical Oncology)
Anthony Lucci, MD (Breast Surgical Oncology)
Joseph A. Ludwig, MD (Sarcoma Medical Oncology)
Funda Meric-Bernstam, MD (Invest. Cancer Therapeutics)
Lavinia P. Middleton, MD (Anatomical Pathology)
Tamara Miner Haygood, MD (Diag Rad – Musculoskeletal Imaging)
Shreyaskumar Patel, MD (Sarcoma Medical Oncology)
George H. Perkins, MD (Radiation Oncology)
Vinod Ravi, MD (Sarcoma Medical Oncology)
Erika Resetkova, MD (Anatomical Pathology)
Merrick I. Ross, MD (Surgical Oncology)
Aysegul A. Sahin, MD (Pathology Admin)
Lumarie Santiago, MD (Diag Rad – Breast Imaging)
Simona F. Shaitelman, MD (Radiation Oncology)
Benjamin Smith, MD (Radiation Oncology)
Eric A. Strom, MD (Radiation Oncology)
W. Fraser Symmans, MD (Anatomical Pathology)
Nina Tamirisa, MD (Breast Surgical Oncology)
Vicente Valero, MD (Breast Medical Oncology)
Mary Lou Warren, DNP, APRN, CNS-CC♦
Gary J. Whitman, MD (Diag Rad – Breast Imaging)
Wendy Woodward, MD (Radiation Oncology)
Wei Yang, MD (Diag Rad – Breast Imaging)
Wendong Yu, MD, PhD (Anatomical Pathology)

♦ Clinical Effectiveness Development Team