

DAFTAR PUSTAKA

- Abdulwahid, H.M., Al-Dabbagh, W.H., Nadhir, S., 2021. Correlation between Mammographic Appearance of Breast Cancer and Histopathological Results. *Oncology and Radiotherapy*, 12 : 48 – 58.
- Alexeeff, S.E., Odo, N., Lipson, J.A., Achacoso, N., Rothstein, J.H., Yaffe, M.J., Liang, R.Y., Acton, L., McGuire, V., Whittemor, A.S., Rubin, D.L., Sieh, W., Habel, L.A, 2017. Age at Menarche and Late Adolescent Adiposity Associated with Mammographic Density on Processed Digital Mammograms in 28.840 Women. *Cancer Epidemiol Biomarkers Prev*, 26 (9) : 1450 – 1458.
- Algazzar, M.A., Elsayed, E.E., Alhanafy, A. M., Mousa, W. A., 2020. Breast Cancer Imaging Features as a Predictor of the Hormonal Receptor Status, HER2neu Expression and Molecular Subtype. *Egyptian Journal of Radiology and Nuclear Medicine*. 51 : 93.
- Anggorowati, L., 2013. Faktor Risiko Kanker Payudara Wanita. *Jurnal Kesehatan Masyarakat*, 8 (2).
- Ariabod, V.A. et al. (2021) 'Assessment of Breast Cancer Immunohistochemical Properties with Demographics and Pathological Features; A Retrospective Study', *International Journal of Cancer Management*, 14(11), p. e114577. Available at: <https://doi.org/10.5812/ijcm.114577>.
- Bae, M.S., Moon, W.K., Chang, J.M., Koo, H.R., Kim, W.H., Cho, N., Yi, A., Yun, B.L., Lee, S.H., Kim, M.Y., Ryu, E.B., Seo, M., 2014. Breast Cancer Detected with Screening US : Reasons for Nondetection at Mammography. *Radiology*, 270 (2) : 369 – 77.
- Bai, S. et al. (2023) 'The association between mammographic density and breast cancer molecular subtypes: a systematic review and meta-analysis', *Clinical Radiology*, 78(8), pp. 622–632. Available at: <https://doi.org/10.1016/j.crad.2023.04.008>.
- Balleyguier, C., Ayadi's., Van Nguyen, K., Vanel, D., Sigal, R., 2007. BIRADS Classification in Mammography. *Eur J Radiol*, 61 (2) : 192 – 4.
- Beaber, E.F., Buist , D.S., Barlow, W.E., Malone, K.E., Reed, S.D., 2014. Recent Oral Contraceptive Use by Formulation and Breast Cancer Risk Among Women 20 to 49

- years of Age. *Cancer Res* 2014, 74 : 4078 – 89.
- Bertrand, K.A. et al. (2013) 'Mammographic density and risk of breast cancer by age and tumor characteristics.', *Breast cancer research: BCR*, 15(6), p. R104. Available at: <https://doi.org/10.1186/bcr3570>.
- Bertrand, K.A., Tamimi, R.M., Scott, C.G., Jensen, M.R., Pankratz, V.S., Visscher, D., Norman, A., Couch, F., Shepherd, J., Fan, B., Chen, Y.Y., Ma, L., Beck, A.H., Cummings, S. R., Kerlikowske, K., Vachon, C.M., 2013. Mammographic Density and Risk of Breast Cancer by Age and Tumor Characteristic. *Breast Cancer Res*. 15. doi:10.1186/bcr3570
- Bodewes, F.T.H. et al. (2022) 'Mammographic breast density and the risk of breast cancer: A systematic review and meta-analysis', *The Breast*, 66, pp. 62–68. Available at: <https://doi.org/10.1016/j.breast.2022.09.007>.
- Boyd, N.F., Guo, H., Martin, L.J., Sun, L., Stone, J., Fishell, E., Jong, R.A., Hislop, G., Chiarelli, A., Minkin, S., Yaffe, M.J., 2007. Mammographic Density and the Risk and Detection of Breast Cancer. *N. Engl J Med*, 356 (3) : 227 – 36.
- Boyd, N.F., Martin, L.J., Yaffe, M.J., Minkin, S., 2011. Mammographic Density and Breast Cancer Risk : Current Understanding and Future Prospects. *Breast Cancer Research*, 13 : 223.
- Brown, Al., Vijapura, C., Patel, M., Cruz AD, Wahab, R., 2023. Breast Cancer in Dense Breasts : Detection Challenges Supplemental Screening Opportunities. *Radiographics*; 43 : 10.
- Cardona Ortegón, J.D. et al. (2024) 'Exploring Dense Breast Density in Mammography: A Comparative Analysis of Breast Cancer Risk.', *Cureus*, 16(11), p. e74026. Available at: <https://doi.org/10.7759/cureus.74026>.
- Chand, P., Garg, A., Singla, V., Rani, N., 2018. Evaluation of Immunohistochemical Profile of Breast Cancer for Prognostic and Therapeutic Use. *Niger J Surg*, 24 (2) : 100 – 106.
- Checka, C.M. et al. (2012) 'The Relationship of Mammographic Density and Age: Implications for Breast Cancer Screening', *American Journal of Roentgenology*, 198(3), pp. W292–W295. Available at: <https://doi.org/10.2214/AJR.10.6049>.
- Chen, H. et al. (2021) 'Comparison of the sensitivity of mammography, ultrasound, magnetic resonance imaging and combinations of these imaging modalities for the detection of small (≤ 2 cm) breast cancer', *Medicine*, 100(26), p. e26531. Available at: <https://doi.org/10.1097/MD.00000000000026531>.
- D'Orsi, C. J., E. A Sickles, E. B. Mendelson, E. A. Morris, W. E. Creech, P. F. Butler, et al. 2014. ACR BI-RADS Atlas Fifth Edition. First edition Carl J. D'Orsi Edito. American College of Radiology. Timothy Gallagher. First e-publication, June 2014. Zoberland. Pp : 3 – 184.

- Davey, MG., Hynes, SO., Kerin, MJ., Miller, N., Lowery, AJ. Ki-67 as a Prognostik Biomarker in Invasive Breast Cancer. Cancer (Basel) 13 (17) : 4455.
- Devkota, R., Bhattarai, M., et al., 2021. Evaluation of Breast Mass by Mammographic and Ultrasonography with Histopathological Correlation. J Nepal Health Res Counc, 19 (52) : 487 – 93.
- Ding, J., Warren, R., Girling, A., Thompson, D., Easton, D., 2010. Mammographic Density, Estrogen Receptor Status and other Breast Cancer Tumor Characteristics. *Breast J.* 16: 279 – 289.
doi:10.1111/j.1524-4741.2010.00907.x
- Dorgan, J.F., Klifa, C., Deshmukh, S., Egleston, B.L., Shepherd, J.A., Kwiterovich Jr, P.O., Van Horn, L., Snetselaar, L.G., Stevens, V.J., Robson, A.M., Lasser, N.L., Hylton, N.M., 2013. Menstrual and Reproductive Characteristics and Breast Density in Young Women. *Cancer Causes Control*, 24 (11) : 1973 – 1983.
- Duffy, S.W. et al. (2018) 'Mammographic density and breast cancer risk in breast screening assessment cases and women with a family history of breast cancer.', *European journal of cancer (Oxford, England : 1990)*, 88, pp. 48–56. Available at: <https://doi.org/10.1016/j.ejca.2017.10.022>.
- Edwards, B.L. et al. (2017) 'The Association of Mammographic Density and Molecular Breast Cancer Subtype.', *Cancer epidemiology, biomarkers & prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology*, 26(10), pp. 1487–1492. Available at: <https://doi.org/10.1158/1055-9965.EPI-16-0881>.
- Ermi, N., Kamso, S., 2019. Correlation Between Hormonal Contraceptive Use and Age of Menarche with Breast Cancer Among Women in Indonesia : A Systematic Review. *Kne Life Sciences*, 92 – 101.
- Ferlay, J., Soerjomataram, I., Dikshit, R., Eser, S., Mathers, C., Rebelo, M., Parkin, D.M., Forman, D., Bray, F., 2015. Cancer Incidence and Mortality Worldwide: Sources, Methods and Major Patterns in GLOBOCAN 2012. *Int J Cancer*, 136 (5) : E359 – 86.
- Fletcher, S.W., Elmore, J.G., 2011. Mammographic Screening for Breast Cancer. *N Engl J Med*, 348 (17) : 1672 – 1680.
- Gunawan, A., 2021. Pemilihan Pemeriksaan Imaging untuk Skrining Karsinoma Mammariae. *CDK* – 295/ vol. 48 no. 6
- Gupta, P. et al. (2018) 'Comparison of Molecular Subtypes of Carcinoma of the Breast in Two Different Age Groups: A Single Institution Experience.', *Cureus*, 10(6), p. e2834. Available at: <https://doi.org/10.7759/cureus.2834>.

- Gupta, P., Rai, N., Agarwai, L., Namdev, S. 2010. Comparison of Molecular Subtypes of Carcinoma of the breast in Two Different Age Groups : a Single Institution Experience. *Cureus*; 10 (6).
- Heller, S.L., Lin, L.L.Y., Melsaether, A.N., Moy, L., Gao, Y., 2018. Hormonal Effects on Breast Density, Fibroglandular Tissue, and Background Parenchymal Enhancement. *Radiographics*, 38.
- Hennessey, S., Huszti, E., Boyd, NF., 2014. Bilateral Symmetry of Breast Tissue Composition by Magnetic Resonance in Young Women and Adults. *Springer Nature Link*, Volume 25 491 – 497.
- Hicks, DG., Lester, SC. Hormon Receptors (ER/PR). *Diagn Pathol*. 2016 ; 430 – 439.
- Hidayati, K.N., Purnama, H.W., Murti, A.N.B., Veibiani, N.A., 2024. Meta Analysis : Correlations between Age at Menarche, Parity, and Hormonal Contraceptive Use with Breast Cancer in Women of Reproductive Age. *Journal of Maternal and Child Health*, 9 (3) : 326 – 340.
- Higgins, MJ., Stearn, V., 2009. Understanding Resistance to Tamoxifen in Hormone Receptor – Positive Breast Cancer. *Clini Chem* 55 (8) : 1453 – 1455.
- Holm, J. et al. (2017) 'Assessment of Breast Cancer Risk Factors Reveals Subtype Heterogeneity.', *Cancer research*, 77(13), pp. 3708–3717. Available at: <https://doi.org/10.1158/0008-5472.CAN-16-2574>.
- Horvath, E., 2021. Molecular Subtypes of Breast Cancer-What Breast Imaging Radiologists Need to Know. *Rev.Chil. Radiol.* 27: 17 – 26. doi:10.4067/S0717-93082021000100017
- Houghton, L.C., Jung, S., Troisi, R., LeBlanc, E.S., Snetselaar, L.G., Hylton, N.M, Klifa, C., Horn, L.V., Paris, K., Shepherd, J.A., Hoover, R.N., Dorgan, J.F, 2019. Pubertal Timing and Breast Density in Young Women : A Prospective Cohort Study. *Breast Cancer Research*, 21 : 122 – 130.
- Hunt, J.T., Kamat, R., Yao, M., Sharma, N., Batur, P., 2023. Effect of Contraceptive Hormonal Therapy on Mammographic Breast Density : A Longitudinal Cohort Study. *Clinical Imaging*, 97: 62 – 67.
- Ismail, A. et al. (2024) 'Heliyon Breast cancer molecular subtype classification according to immunohistochemistry markers and its association with pathological characteristics among women attending tertiary hospitals in Tanzania', *Heliyon*, 10(19), p. e38493. Available at: <https://doi.org/10.1016/j.heliyon.2024.e38493>.
- Jati, N.U., Choridah, L., Icanervilia, A.V., 2020. Correlation Between Mammographic Density and Hormonal Contraceptive Use of Women in Yogyakarta. *Universitas Gadjah Mada*.
- Jenkins, E.O. et al. (2014) 'Age-specific changes in intrinsic breast cancer subtypes: a

- focus on older women.’, *The oncologist*, 19(10), pp. 1076–1083. Available at: <https://doi.org/10.1634/theoncologist.2014-0184>.
- Kanbayti, IH., Nasruddin, RS., Sumait, DA., Alnemari, AD., Hadadi, I., Almaimoni, Y., Ekpo, EU., 2025. Clinical Epidemiology and Global Health
- Kardinah., Darmiati S., Mayani, AN., Apriyani WA., 2024. Pedoman Pelaksanaan Pencitraan Payudara : Mamografi. Perhimpunan Dokter Spesialis Radiologi Indonesia: Universitas Indonesia Publishing.
- Kim, SJ., Chung, S., Chang, JM., Cho, N., Han, W., Moon, WK., 2015. Ultrasound Screening of Contralateral Breast After Surgery for Breast Cancer. *European Journal of Radiologi*; 84 : 54 – 60.
- Kleinstern, G. et al. (2021) ‘Association of mammographic density measures and breast cancer “intrinsic” molecular subtypes.’, *Breast cancer research and treatment*, 187(1), pp. 215–224. Available at: <https://doi.org/10.1007/s10549-020-06049-8>.
- Kumar, P., Anggarwal, R., 2016. An Overview of Triple-negative Breast Cancer. *Arch Obstet Gynaecol* 2016 : 293 (2) 247 – 269.
- Kundana, R., Richa, B. and Bharat, A. (2023) ‘Mammographic correlation with molecular subtypes of breast carcinoma’, *Journal of Radiology and Oncology*, 7, pp. 1–5. Available at: <https://doi.org/10.29328/journal.jro.1001045>.
- Lacey, M., 2024. *Immunohistochemistry : Current Application in Breast Cancer*. Merck.
- Li, E. et al. (2019) ‘Associations between mammographic density and tumor characteristics in Chinese women with breast cancer.’, *Breast cancer research and treatment*, 177(2), pp. 527–536. Available at: <https://doi.org/10.1007/s10549-019-05325-6>.
- Lloyd, R., Pirikahu, S., Walter, J., Cadby, G., Warrington, N., Perera, D., Hickey, M., Saunders, C., Hackmann, M., Sampson, D.D., Shepherd, J., Lilge, L., Stone, J., 2024. The Prospective Association between Early Life Growth and Breast Density in Young Adult Women. *Cancers* 16 (13): 2418.
- Loibl, S., Gianii, L. 2017. HER2-positive Breast Cancer. *Lancet* 389 : 2415 – 2429.
- Lynge, E., Vejborg, I., Lillholm, M., Nielsen, M., Napolitano, G., Euler-Chelpen, M., 2022. Breast Density and Risk of Breast Cancer. *International Journal of Cancer*, 152 : 1150 – 1158.
- Ma, H., Luo., Press, M. F., Wang, Y., Bernstein, L., Ursin, G., 2009. Is There a Difference in the Association Between Percent Mammographic Density and Subtypes of Breast Cancer? Luminal a and Triple – Negative Breast Cancer. *Cancer Epidemiol. Biomarkers Prev.* 18: 479 – 485.

- Macari, A. et al. (2021) 'Prevalence and Molecular Profile of Breast Carcinoma Using Immunohistochemistry Markers in Mexican Women', 12(4), pp. 119–123. Available at: <https://doi.org/10.14740/wjon1392>.
- Mann, R.M. et al. (2022) 'Breast cancer screening in women with extremely dense breasts recommendations of the European Society of Breast Imaging (EUSOBI)', pp. 4036–4045.
- Matro, JM., Li, T., Cristofanilli, M., Hughes, ME., Ottesen, RA., Weeks, JC., Wong, YN. 2015. Inflammatory Breast Cancer Management in the National Comprehensive Cancer Network : The Disease, Recurrence Pattern, and Outcome. Clin Breast Cancer. 2015; 15 (1) : 1 – 7.
- McCormack, V.A., dos Santos Silva, I., 2006. Breast Density and Parenchymal Patterns as Markers of Breast Cancer Risk : A Meta-analysis. Cancer Epidemiol Biomarkers Prev, 15 : 1159 – 1169.
- Miah, S., Bagu, E., Goel, R., Ogunbolude., Dai, C., Ward, A., et al. Estrogen Receptors Signaling Regulates the Expression of the Breast Cancer Cells. BMC Cancer. 2019 ; 19 : 78.
- Morch, L.S., Skovlund, C. W., Hannaford, P. C., Iversen, L., Fielding, S., Lidegaard, O., 2017. Contemporary Hormonal Contraception and the Risk of Breast Cancer. The New England Journal of Medicine, 337 : 2228 – 39.
- Nazari, S.S., Mukherjee, P., 2018. An Overview of Mammographic Density and Its Association with Breast Cancer. Springerlink, 25 : 256 – 267.
- Nicolini, A., Ferrari, P., Duffy, MJ. Prognostic and Predictive Biomarkers in Breast Cancer: Past, Present and Future. Semin Cancer Biol. 2018; 52 (1) : 56 – 73.
- Ohmaru, A. et al. (2023) 'Age-related change in mammographic breast density of women without history of breast cancer over a 10-year retrospective study.', PeerJ, 11, p. e14836. Available at: <https://doi.org/10.7717/peerj.14836>.
- Oviyanti, P.N. and Choridah, L. (2022) 'Korelasi densitas payudara berdasarkan pemeriksaan mamografi dan sub tipe imunohistokimia pada kanker payudara', etd.repository.ugm.ac.id [Preprint].
- Oviyanti, P.N., Choridah, L., 2018. Korelasi Densitas Payudara Berdasarkan Mamografi dan Sub tipe Imunohistokimia pada Kanker Payudara. Universitas Gadjah Mada.
- Parmigiani, G., Chen, S., Iversen Jr, E.S., Friebel, T.M., Finkelstein, D.M., Anton-Culver, H., Ziogas, A., Weber, B.L., Eisen, A., Malone, K.E., Daling, J.R., Hsu, L., Ostrander, E.A., Peterson, L.E., Schildkraut, J.M., Isaacs, C., Corio, C., Leondaridis, L., Tomlinson, G., Amos, C.I., Strong, L.C., Berry, D.A., Weitzel, J.N., Sand, S., Dutson, D., Kerber, R., Peshkin, B.N., Euhus, D.M., 2008. Validity of Models for Predicting BRCA1 and BRCA2

- Mutations. *Ann Intern Med*, 147 (7) : 441 – 450.
- Patterson, S.K., Roubidoux, M.A., 2014. Update on New Technologies in Digital Mammography. *Int J Women's Health*, 6 : 781 – 8.
- Pérez-Rodríguez, G. (2015) '[Prevalence of breast cancer sub-types by immunohistochemistry in patients in the Regional General Hospital 72, Instituto Mexicano del Seguro Social]', *Cirugia y cirujanos*, 46. Available at: <https://doi.org/10.1016/j.circir.2015.05.003>.
- Priti, S. et al. (2024) 'Association of mammographic breast density measurements and hormone receptor status of breast cancer.', *Polish journal of radiology*, 89, pp. e273–e280. Available at: <https://doi.org/10.5114/pjr/187679>.
- Pulido, C., Vendrell, I., Ferreira, A., Casimiro, S., Masnsinho, A., Alho, I., et al. 2017. Bone Metastasis Risk Factors in Breast Cancer. *Ecancermedicalscience* 11 : 715.
- Quan G., Pommier, S.J., Pommier, R.F., 2008. Incidence and Outcomes of Contralateral Breast Cancers. *The American Journal of Surgery*; 195 : 645 – 650.
- Rahmawati, Y., Setyawati, Y., Widodo, I., Ghozali, A., Purnomosari, D., 2017. Molecular Subtypes of Indonesia Breast Carcinomas – Lack of Association with Patient Age and Tumor Size. *Asian Pac J Cancer Prev*; 199 (1), 161 – 166.
- Rauh, C., Hack, C.C., Haberle, L., Hein, A., Engel, A., Schrauder, M.G., Fasching, P.A., Jud, S.M., Ekici, A.B., Loehber, C.R., Meier-Meitingner, M., Ozan, S., Schulz-Wendtland, R., Uder, M., Hartmann, A., Wachter, D.L., Beckmann, M.W., Heusinger, K., 2012. Percent Mammographic Density and Dense Area as Risk Factors for Breast Cancer. *Geburtshilfe Frauenheilkd*, 72 (8) : 727 – 733.
- Razzaghi, H., Troester, M.A., Gierach, G.L., Olsan, A.F., Yankaskas, B.C., 2013. Association between Mammographic Density and Basal-like and Luminal A Breast Cancer Subtypes. *Breast Cancer Research*, 15 : R76.
- Rehman, H. et al. (2025) 'Comparison of Diagnostic Accuracy of Ultrasound and Mammography in Detecting Breast Cancer in Radiographically Dense Breasts', 17(9). Available at: <https://doi.org/10.7759/cureus.92637>.
- Riskesdas, 2013. Riset Kesehatan Dasar, Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI.
- Robinson, A., Speers, C., Olivotto, I., Chia, S., 2007. Method of Detection of New Contralateral Primary Breast Cancer in Younger Older Women. *Clinical Breast Cancer*; 7 : 705 – 709.
- Sak, M.A. et al. (2015) 'Current and Future Methods for Measuring Breast Density: A Brief Comparative Review.', *Breast cancer management*, 4(4), pp. 209–221. Available at: <https://doi.org/10.2217/bmt.15.13>.

- Setyawati, Y. et al. (2018) 'The Association between Molecular Subtypes of Breast Cancer with Histological Grade and Lymph Node Metastases in Indonesian Woman', 19, pp. 1263–1268. Available at: <https://doi.org/10.22034/APJCP.2018.19.5.1263>.
- Shaath, H,m Elango, R., Alajez, NM. 2021. Molecular Classification of Breast Cancer Utilizing Long Non-Coding RNA (lncRNA) Transcriptomes Identifies Novel lncRNA Panel for Triple-Negative Breast Cancer. 2021; 13 (21) : 5350.
- Siddique, M.N., N.U. Saher, N. Siddique, N. Saleem, S.N. Varma. 2017. Mammogram. Medscape. <https://emedicine.medscape.com/article/1948247-overview>
- Sjamsuhidajat, D.J., 2010. Buku Ajar Ilmu Bedah Sjamsuhidayat-De Jong., 3rd ed. EGC, Jakarta.
- Spicer, D.V., Ursin, G., Parisky,Y.R., Pearce, J.G., Shoupe, D., Pike, A., Pike, M.C., 1994. Changes in Mammographic Densities Induced by A Hormonal Contraceptive Designed to reduce Breast Cancer Risk. Journal of the National Cancer Institute, 86 (6): 431 – 436.
- Tamimi, R.M., Byrne, C., Colditz, G.A., Hankinson, S.E., 2007. Endogenous Hormone Levels, Mammographic Density, and Subsequent Risk of Breast Cabcer in Postmenopausal Women. J Natl Cancer Inst, 99 : 1178 – 87.
- Tan, V. et al. (2025) 'The association between breast density and HER2-positive breast cancer: A population-based case-control study.', Journal of Clinical Oncology, 38(15_suppl), pp. e12556–e12556. Available at: https://doi.org/10.1200/JCO.2020.38.15_suppl.e12556.
- Tang, P., Tse, G.M., 2016. Immunohistochemical Surrogates for Molecular Classification of Breast Carcinoma : A 2015 Update. Arch. Pathol. Lab. Med. 140 : 806 – 814. doi:10.5858/arpa.2015-0133-RA
- Ward, S.V., Burton, A., Tamimi, R.M., Pareira, A., Garmendia, M.L., Pollan, M., Boyd, N., Silva, I., Maskarinec, G., Perez-Gomez, B., Vachon, C., Miao, H., Lajous, M., Lopez-Ridaura, R., Bertrand, K., Kwong, A., Ursin, G., Lee, E., Ma, H., Vinnicombe, S., Moss, S., Allen, S., Ndumia, R., Vinayak, S., Teo, S., Mariapun, S., Peplonska, B., Bukowska-Damska, A., Nagata, C., Hopper, J., Giles, G., Ozmen, V., Aribal, M.E., Schuz, J., Van Gils, C.H., Wanders, J.O.P., Sirous, R., Sirous, M., Hipwell, J., Kim, J., Lee, J.W., Dickens,C., Hartman, M., Chia, K,. Scott, C., Chiarelli, A.M., Linton, L., Flugelman, A.A., Salem, D., Kamal, R., McCormack, V., Stone, J., 2022. The Association of Age at Menarche and Adult Height with Mammographic Density in the International Consortium of Mammographic Density. Breast Cancer Research.
- White, N.D., 2018. Hormonal Contraception and Breast Cancer Risk. American Journal of Lifestyle Medicine, 12 (3) : 224 – 226.

- Wolfe, J.N., 1976. Risk for Breast Cancer Development Determined by Mammographic Parenchymal Pattern. *Cancer*, 37 (5) : 2486 – 92.
- Xiao, W., Zheng, S., Yang, A., Zhang, X., Zou, Y,m Tang, H., et al. 2018. Breast Cancer Subtypes and the Risk of Distant Metastasis at Initial Diagnosis : a Population- Based Study. *Cancer Manag Res* 10 : 5329.
- Yaghjian, L., Smotherman, C., Heine, J., Colditz, G.A., Rosner, B., Tamimi, R.M., 2022. Associations of Oral Contraceptives with Mammographic Breast Density in Premenopausal Women. *Cancer Epidemiol Biomarkers Prev*, 31 (2) 436 – 442.
- Zaha, D.C., 2014. Significance of Immunohistochemistry in Breast Cancer. *World Journal of Clinical Oncology*, 5 (3) : 382 – 392.
- Zhang, MH., Man, HT., Zhao, XD., Dong, N., Ma, SL. Estrogen receptor-positive breast cancer molecular signaures and therapeutics potentials (Review). *Biomed Rep.* 2013 : 2: 41 – 52.
- Ziv, E., Shepherd, J., Kerlikowske, K., 2003. BRIEF Mammographic Breast of Breast Cancer Women in the San Francisco Mam-. *J. Natl. Cancer Inst.* 95: 2 – 4.
- Zuraidah, E., Agatha, N.F.P., Edwar, S.Q., Handayani, S.I., 2023, Correlation Between Age at Menarche and Breast Cancer Incidence in Dr. Cipto Mangunkusumo National General Hospital, Jakarta, Indonesia (2010 – 2014). *Asian Pacific Journal of Cancer Care*, 8 (3) : 459 – 464.

CASE REPORT FORM

Perbandingan Densitas Payudara Berdasarkan Pemeriksaan Mammografi dengan Subtipe Imunohistokimia pada Pasien Kanker Payudara di RSPTN Universitas Hasanuddin

Nama : DPJP :
No Sampel (RM) : RS :
Usia/ TTL : Tanggal pemeriksaan :
Alamat :
No HP :

Klinis :
Usia menarche :
Riwayat KB hormonal :
Riwayat keluarga :
Status paritas :
Riwayat menyusui :
Lokasi lesi : ☐ Kanan
☐ Kiri
☐ Bilateral

Hasil imunohistokimia :
a. ER + / -
(estrogen receptor)
b. PR + / -

(progesterone receptor)

c. HER 2 + / -

(human epidermal growth factor receptor-2)

d. Ki-67 + / -

(antigen Kiel-67/ MKI67)

Kesan imunohistokimia : ☐ Luminal A

☐ Luminal B☐ Enriched HER-2

☐ Triple Negative

Hasil histopatologi :

Hasil laboratorium :

CA 15-3 :

Pengobatan : ☐ Kemoterapi :

☐ Radioterapi :

☐ Operatif (prosedur) :

Tanggal operasi :

Pemeriksaan Radiologi

Mammography

Payudara : ☐ Kanan ☐ Kiri

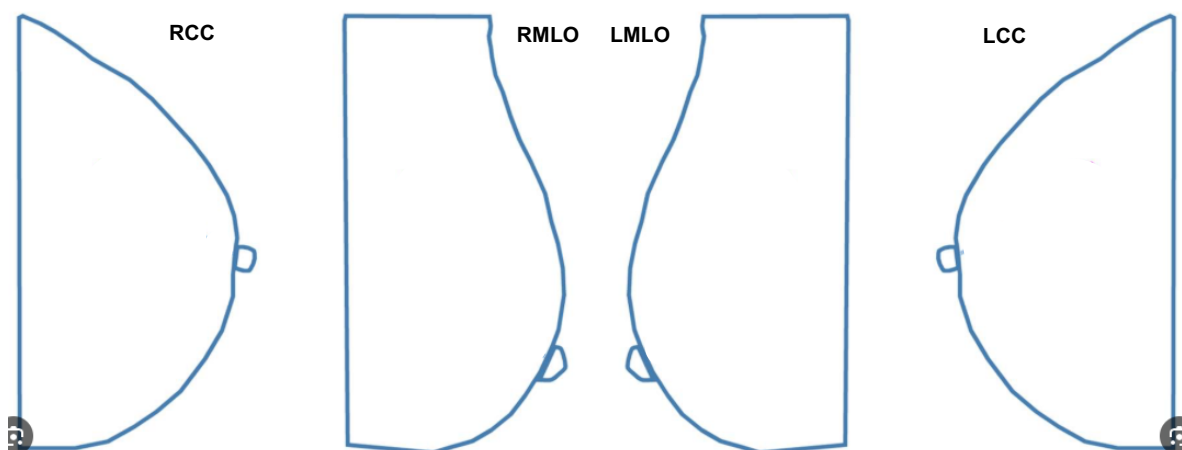
Densitas jaringan : ☐ **Tipe A.** *Entirely fat*
☐ **Tipe B.** *Scattered* (Jaringan fibroglandular yang tersebar)
☐ **Tipe C.** *Heterogenously dense* (Densitas heterogen, dapat menyamarkan massa kecil)
☐ **Tipe D.** *Extremely dense* (Payudara sangat padat)

Lesi :
Bentuk : ☐ Oval
☐ Bulat
☐ Irreguler
Batas : ☐ Tegas
☐ Mengabur
☐ Microlobulated
☐ Spiculated

Kalsifikasi : + / -

Distorsi arsitektur : + / -

Gambaran terkait : ☐ Retraksi kulit
☐ Retraksi nipple
☐ Penebalan kulit



Pemeriksaan Radiologi Lain

USG Payudara :

USG Abdomen :

CT Scan :

MRI :

Makassar,
Peneliti

dr. Antonia Dina Yunita

INFORMED CONSENT

Judul Penelitian : Perbandingan Densitas dan Karakteristik Lesi Payudara Berdasarkan Pemeriksaan Mammografi dengan Profil Imunohistokimia Subtipe Luminal dan Non Luminal pada Pasien Kanker Payudara Pre Terapi

Penjelasan :

Saya,, dengan ini menyatakan bahwa saya telah memahami penjelasan yang diberikan oleh peneliti mengenai penelitian ini. Saya mengerti bahwa penelitian ini bertujuan untuk :

- Mengetahui densitas payudara dengan pemeriksaan mammografi pada pasien kanker payudara
- Mengetahui subtipe imunohistokimia pada pasien kanker payudara
- Menganalisa korelasi densitas payudara berdasarkan pemeriksaan mammografi dengan subtipe imunohistokimia pada pasien kanker payudara

Risiko :

Saya juga memahami bahwa penelitian ini memiliki risiko, yaitu :

Risiko yang terkait dengan pemeriksaan mammografi :

- Paparan radiasi dosis rendah
- Rasa tidak nyaman pada saat pemeriksaan
- Kecemasan atau stress akibat hasil pemeriksaan

Keuntungan :

Saya memahami bahwa tidak ada keuntungan langsung yang saya peroleh dari keikutsertaan saya dalam penelitian ini. Namun, hasil penelitian ini diharapkan dapat bermanfaat untuk :

- Meningkatkan pemahaman tentang peran pemeriksaan densitas payudara berdasarkan pemeriksaan mammografi pada pasien kanker payudara di RSPTN Universitas Hasanuddin
- Membantu dokter dalam mendiagnosis dan memantau pasien kanker payudara dengan lebih akurat
- Mengembangkan strategi pengobatan yang lebih efektif untuk pasien kanker payudara

Kerahasiaan :

Saya memahami bahwa semua informasi pribadi saya akan dirahasiakan dan hanya akan digunakan untuk keperluan penelitian ini. Saya tidak akan diidentifikasi dalam publikasi atau presentasi hasil penelitian ini

Kesukarelaan :

Saya memahami bahwa keikutsertaan saya dalam penelitian ini bersifat sukarela. Saya berhak untuk menarik diri dalam penelitian ini kapan saja tanpa alasan apapun. Penarikan diri saya dari penelitian ini tidak akan berakibat negative terhadap perawatan medis saya

Pertanyaan :

Saya telah diberi kesempatan untuk bertanya kepada peneliti tentang penelitian ini dan semua pertanyaan saya telah dijawab dengan memuaskan. Saya tidak memiliki pertanyaan lain tentang penelitian ini

Persetujuan :

Dengan menandatangani informed consent ini, saya menyatakan bahwa saya telah memahami semua informasi yang diberikan kepada saya tentang penelitian ini dan saya menyetujui untuk berpartisipasi dalam penelitian ini. Tanggal

TTD Pasien

TTD Peneliti

(_____)

dr. Antonia Dina Yunita



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
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REKOMENDASI PERSETUJUAN ETIK

Nomor : 593/UN4.6.4.5.31/ PP36/ 2025

Tanggal: 14 Agustus 2025

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH25070587	No Sponsor	
Peneliti Utama	dr. Antonia Dina Yunita	Sponsor	
Judul Peneliti	PERBANDINGAN DENSITAS PAYUDARA BERDASARKAN PEMERIKSAAN MAMMOGRAFI DENGAN SUBTIPE IMMUNOHISTOKIMIA PADA PASIEN KANKER PAYUDARA		
No Versi Protokol	1	Tanggal Versi	30 Juli 2025
No Versi PSP		Tanggal Versi	
Tempat Penelitian	RSUP Wahidin Sudirohusodo Makassar		
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard Tanggal	Masa Berlaku 14 Agustus 2025 sampai 14 Agustus 2026	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Prof. dr. Muh Nasrum Massi, PhD, SpMK, Subsp. Bakt(K)	Tanda tangan 	
Sekretaris KEP Universitas Hasanuddin	dr. Firdaus Hamid, PhD, SpMK(K)	Tanda tangan 	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

CURRICULUM VITAE

A. Data Pribadi

Nama : dr. Antonia Dina Yunita
Agama : Kristen Advent
Tempat/ Tgl Lahir : Purworejo, 14 Juni 1989
Alamat : Citraland Tallasa City, Cluster Greenstone blok C6/20 Jl Jalur
Lingkar Barat Selatan, Kapasa, Kec. Tamalanrea, Kota
Makassar
Nama Ayah/ Ibu : Yohanes Apostulus Sulardi/ Maria Endang Rahayu
Suami : dr. Herbert Mosses Hanaya Triosah, Sp. THT-BKL
Anak : Kimberly Abishag Galilea Triosah
Shannon Getsemani Triosah

B. Riwayat Pendidikan

SD (1996-2001) : SD Katolik Tanjung Pinang, Kepulauan Riau
SMP (2001-2004) : SMP Katolik Bunda Hati Kudus, Kotawisata
SMA (2004-2007) : SMA Katolik Bunda Hati Kudus, Kotawisata
Perguruan Tinggi (2007-2010) : Fakultas Kedokteran Universitas Kristen
Indonesia, Jakarta Timur
Profesi Dokter (2010-2013) : Fakultas Kedokteran Universitas Kristen
Indonesia, Jakarta Timur
PPDS (Januari 2023) : Departemen Radiologi Fakultas Kedokteran
Universitas Hasanuddin Periode Januari 2023

C. Riwayat Pekerjaan

1. Dokter Internsip RSUD Kota Mataram, Nusa Tenggara Barat tahun 2013
2. Dokter Internsip Puskesmas Karang Taliwang, Nusa Tenggara Barat tahun 2014
3. Asisten Perinatologi Departemen Ilmu Kesehatan Anak RSUPN Cipto Mangunkusumo tahun 2014 – 2015
4. Dokter Umum RS Mitra Keluarga Depok 2015 – 2021

D. Makalah pada Seminar/ konferens Ilmiah Nasional/ Internasional :

“Papilloma Skuamosa Orofaring : A Case Report”, dibawakan pada Pertemuan Ilmiah Tahunan Perhimpunan Dokter Spesialis Radiologi Indonesia (PIT PDSRKI) 2024 ke 17 di Jakarta