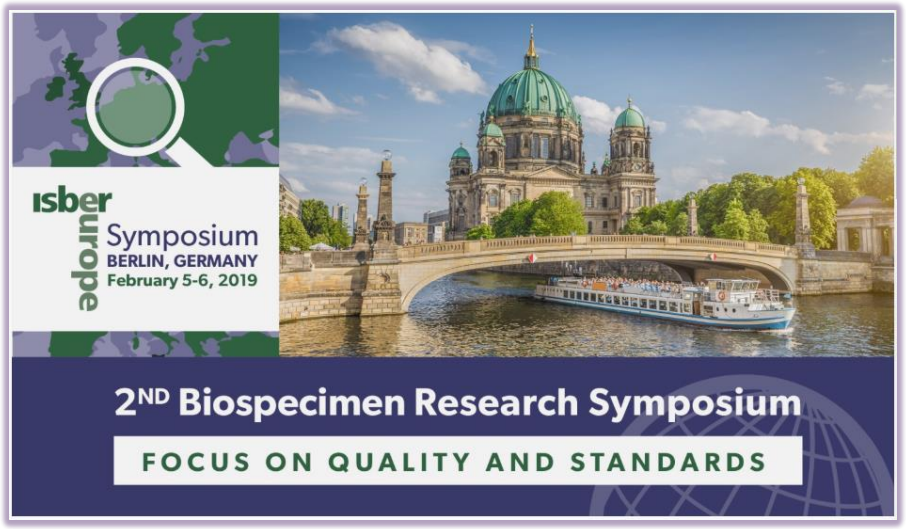
Anexo II: Listado de Publicaciones y Presentaciones a Congresos 2019

En 2019 se han publicado **51 comunicaciones a congresos**, internacionales y nacionales. Si consideramos el promotor del estudio, 29 comunicaciones son de estudios con promotor GEICAM, 13 comunicaciones de estudios con promotor no GEICAM, 1 comunicación es un metanálisis con datos del estudio GEICAM/2006-11 (LEA) y en 7 comunicaciones no aplica al ser comunicaciones generales no específicas de un estudio concreto. Quince de estas comunicaciones han sido gestionadas desde el departamento de Operaciones Clínicas y 22 desde el departamento de Investigación Traslacional; el resto corresponden a estudios no promovidos por GEICAM y, por lo tanto, no se han coordinado desde la sede de GEICAM.

En 2019 se han publicado **21 manuscritos**, todos ellos en revistas internacionales, siendo 19 de ellos artículos de investigaciones originales y 3 análisis conjuntos de varios estudios. Si consideramos el promotor del estudio, 11 manuscritos son de estudios promovidos por GEICAM, 1 por CIBOMA y 9 con un promotor distinto a GEICAM. Ocho de estos manuscritos han sido gestionados desde el departamento de Operaciones Clínicas y 4 desde el departamento de Investigación Traslacional.

LISTADO DE COMUNICACIONES A CONGRESOS

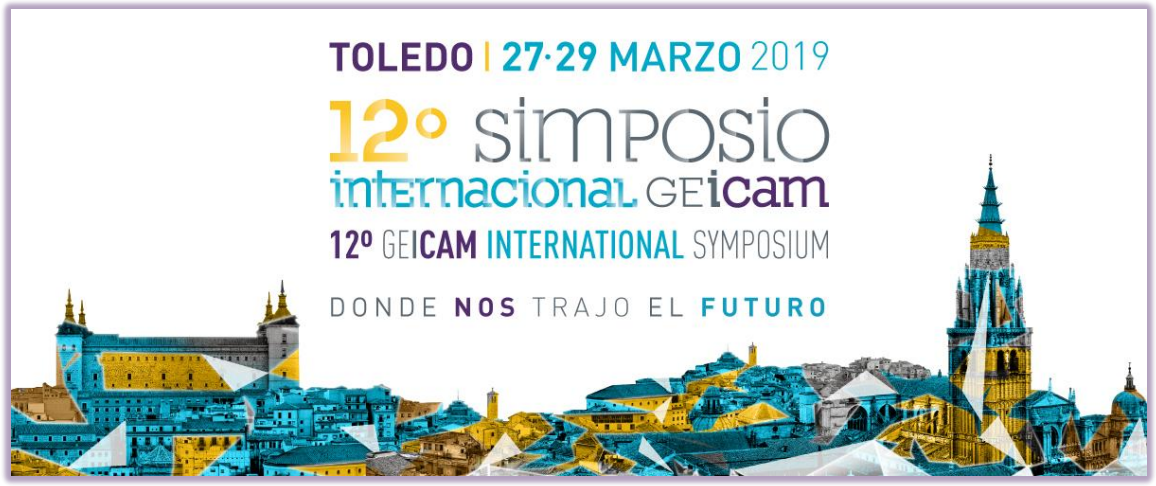


2nd Biospecimen Research Symposium: Focus on quality and standards
February 5-6, 2019, Berlin, Germany
1 comunicación (póster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
No aplica	Departamento de Investigación Traslacional	No aplica	Póster	OPTIMARK Project: search for quality markers for paraffin-embedded tissue samples	Iglesias M, Artiga MJ, Almeida M, Astudillo A, Escalante M, Fraga M, Guerrero C, Martin Arruti M, Tora M, Vieiro P, Rabano A, Zazo S, Bahamonde O, Belar O, Bermudo R, Escamez T, Esteva Socias M, Jauregui L, Peiro L, Rebolledo AB, Ruiz M, Serrate A, Villar V, Villena C, Rejon JD	2nd Biospecimen Research Symposium: Focus on quality and standards. February 5-6, 2019, Berlin, Germany. Abstract: P-21. Best Poster Award. http://news.isber.org/2nd-biospecimen-research-symposium/

V Foro de Inmunología Traslacional e Inmunoterapia del Cáncer. FIT Cáncer 5
7-9 de marzo de 2019, Madrid
1 comunicación (póster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
SI	Departamento de Investigación Traslacional	No aplica	Póster	Evolución de las células supresoras derivadas de línea mieloide (MDSC) en cáncer de mama avanzado y comparativa con cohorte sana **Datos de pacientes con cáncer de mama avanzado del estudio GEICAM/215-04 (PANGEA-Breast)**	Palazón Carrión N, Jimenez Cortegana C, Holgado E, Cruz J, Alonso JL, Sanchez Leon ML, Sanchez Margalet V, Nogales Fernandez E, Valdivia Garcia FJ, Moreno F, Quiroga V, Andres R, Santisteban M, Cortes J, Rodríguez Rodríguez LM, Soto A, Gion M, Nieto-Garcia MA, Chiesa M, de la Cruz Merino L	V Forum of Translational Immunology and Cancer Immunotherapy. FIT Cancer 5. With Special Collaboration of SITC (Society for Immunotherapy of Cancer). March 7-9, 2019. Madrid, Spain. Poster CP02. https://www.getica.org/item-publicaciones



12º Simposio Internacional GEICAM: Donde nos trajo el futuro
27-29 de marzo de 2019, Toledo
15 comunicaciones (todos pósteres)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
No aplica (Biobanco)	Departamento de Investigación Traslacional	No aplica	Póster	Evaluación de los cambios en la calidad de muestras de ARN de tejido tumoral parafinado almacenadas a -80ºC tras cinco ciclos de congelación –descongelación	Mendez OM, Chamizo C, Zazo S, Garcia AM, Lázaro S, Carrasco A, Caballero R, Almeida M	**Póster #54**
No aplica (Biobanco)	Departamento de Investigación Traslacional	No aplica	Póster	Diseño de un protocolo de recogida de muestras biológicas para el análisis del microbioma en pacientes oncológicos en el contexto de un estudio clínico multicéntrico	Garcia AM, Mendez O, Carrasco A, Lázaro S, Caballero R, Almeida M	**Póster #55**
No aplica (Biobanco)	Departamento de Investigación Traslacional	Departamento de Operaciones Clínicas – Gestión de Datos	Póster	Calidad en la gestión de la información asociada a las muestras biológicas en el marco de un biobanco de colecciones remanentes de ensayos clínicos	Almeida M, Caro R, Mendez OM, Garcia AM, Lázaro S, Carrasco A, Caballero R	**Póster #56**

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
CIBOMA (Coalición Iberoamericana de Oncología Mamaria) es la entidad promotora del estudio	Departamento de Operaciones Clínicas	Departamento de Estadística Departamento de Investigación Traslacional	Póster	Efficacy results from **CIBOMA/2004-01_GEICAM/2003-11** study: a randomized phase III trial assessing adjuvant capecitabine after standard chemotherapy for patients with early triple negative breast cancer	Martin M, Barrios CH, Torrecillas L, Ruiz-Borrego M, Bines J, Segalla J, Ruiz A, Garcia-Saenz JA, Torres R, de la Haba J, Garcia E, Gómez HL, Llombart A, Rodriguez de la Borbolla M, Baena JM, Barnadas A, Calvo L, Perez-Michel L, Ramos M, Castellanos J, Rodriguez-Lescure A, Cárdenas J, Vinholes J, Martinez de Dueñas E, Godes MJ, Segui MA, Antón A, López-Álvarez P, Moncayo J, Amorim G, Villar E, Reyes S, Sampaio C, Cardemil B, Escudero MJ, Bezares S, Carrasco E, Lluch A, on behalf of CIBOMA (Iberoamerican Coalition for Research in Breast Oncology), LACOG (Latin American Cooperative Oncology Group) and GEICAM Spanish Breast Cancer Group	**Póster #45**
SI	Departamento de Investigación Traslacional		Póster	Clinico-translational studies actively recruiting in GEICAM: **GEICAM/2014-09 (EFIK),** **GEICAM/2014-11 (AURORA),** **GEICAM/2017-04 (KATIA)** **AND GEICAM/2015-16 (COMETA-Breast)**	Albanell J, de la Haba J, Martin M, Bezares S, Carrasco E, Caballero R, Bermejo B, Calvo L, Gonzalez-Santiago S, Guerrero A, Lopez-Tarruella S, Quiroga V, Ruiz A, Servitja S, Rojo F	**Póster #57**
SI	Departamento de Operaciones Clínicas		Póster	Psychological distress and health-related quality of life in women recently diagnosed with breast cancer **Datos del estudio EpiGEICAM**	Fernandez de Larrea N, Perez Gómez B, Ruiz A, Casas AM, Bermejo B, Baena Cañada JM, Antolin S, Sanchez Rovira P, Ramos Vazquez M, Garcia Saenz JA, Antón A, Muñoz M, Jara Sanchez C, Moreno F, Adrover E, Oltra A, Brunet J, Bezares S, Martin M, Pollán M	**Póster #47**
SI	Departamento de Operaciones Clínicas		Póster	Dietary inflammatory index and breast cancer risk by menopausal status and histological subtype **Datos del estudio EpiGEICAM**	Castello A, Shivappa N, Ruiz A, Casas A, Lluch A, Baena-Cañada JM, Antolin S, Sanchez-Rovira P, Ramos-Vazquez M, Garcia-Saenz JA, Antón A, Muñoz M, de Juan A, Jara-Sanchez C, Vioque J, Perez-Gómez B, Hébert JR, Lope V, Martin M, Pollán M	**Póster #46**

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
SI	Departamento de Operaciones Clínicas		Póster	Personality traits and health related quality of life **Datos del estudio EpiGEICAM**	Fernandez de Larrea N, Perez Gomez B, Gavilá J, Casas AM, Baena Cañada JM, Antolin S, Bezares S, Martin M, Pollán M; on behalf of GEICAM	**Póster #48**
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Póster	Genome copy number entropy as predictor of response for neoadjuvant therapy in early breast cancer	Alba E, Rueda OM, Lluch A, Albanell J, Suet-Feung Chin, Chacón Lopez-Muñiz JI, Calvo L, de la Haba-Rodriguez J, Bermejo B, Ribelles N, Sanchez Rovira P, Plazaola A, Barnadas A, Cirauqui B, Ramos Vazquez M, Arcusa A, Carrasco E, Herranz J, Chiesa M, Caballero R, Santonja A, Rojo F, Caldas C	**Póster #50**
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Póster	Dynamic genomic instability modulation by neoadjuvant therapy in early breast cancer **(GEICAM/2006-03_2006-14)**	Alba E, Rueda OM, Lluch A, Albanell J, Chin SF, Chacón Lopez Muñiz JI, Calvo L, de la Haba Rodriguez J, Bermejo B, Ribelles N, Cirauqui B, Ramos Vazquez M, Arcusa A, Carrasco E, Herranz J, Chiesa M, Caballero R, Santonja A, Rojo F, Caldas C	**Póster #53**
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Póster	Integrative cluster classification to predict pathological complete response to neoadjuvant chemotherapy in early breast cancer	Alba E, Rueda OM, Lluch A, Albanell J, Chin SF, Chacón Lopez Muñiz JI, Calvo L, de la Haba Rodriguez J, Bermejo B, Ribelles N, Cirauqui B, Ramos Vazquez M, Arcusa A, Carrasco E, Herranz J, Chiesa M, Caballero R, Santonja A, Rojo F, Caldas C	**Póster #52**
SI	Departamento de Investigación Traslacional		Póster	Evaluación de las posibles interacciones farmacológicas entre palbociclib y exemestano: resultados del subestudio farmacocinético del ensayo **PEARL (GEICAM/2013-02)**	Gil-Gil M, Hoffman J, Ruiz-Borrego M, Muñoz M, Calvo L, Crownover P, Garcia-Saenz JA, Alba E, Martin N, Martin M	**Póster #51**
SI	Departamento de Investigación Traslacional		Póster	Myeloid-derived suppressor cells evolution in advanced breast cancer and comparative analysis with a healthy population cohort **Datos de pacientes con cáncer de mama avanzado del estudio GEICAM/215-04 (PANGEA-Breast)**	Palazón Carrión N, Jimenez Cortegana C, Holgado E, Cruz J, Alonso JL, Sanchez Leon ML, Sanchez Margalet V, Fernandez Nogales E, Moreno F, Quiroga V, Andres R, Santisteban M, Cortes J, Rodríguez Rodríguez LM, Soto A, Gion M, Nieto-Garcia MA, Chiesa M, Bezares S, de la Cruz Merino L	**Póster #12**

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
SI	Departamento de Operaciones Clínicas	Departamento de Estadística Departamento de Investigación Traslacional	Póster	Run-in-phase results from a multicenter phase II trial to evaluate pembrolizumab (P) and gemcitabine (Gem) in patients (pts) with HER2-negative advanced breast cancer (ABC): **GEICAM/2015-04 PANGEA-Breast**	Quiroga V, Holgado E, Alonso JL, Andres R, Moreno Antón F, Álamo De La Gala MDC, Henao F, Cirauqui Cirauqui B, Margelí M, Cortes Castan J, Gion Cortes M, Soto A, Benito S, Escudero MJ, Chiesa M, Caballero R, Bezares Montes S, Carrasco EM, de La Cruz Merino L	**Póster #44**
SI	Departamento de Operaciones Clínicas		Póster	Principales estudios observacionales con reclutamiento activo en GEICAM: **GEICAM/2014-03 (RegistEM)** (prospectivo, pacientes con CM localmente avanzado no resecable o metastásico), **GEICAM/2016-04** (retrospectivo, pacientes con CM en el varón, evaluación del riesgo de recidiva mediante secuenciación genética) y **ALAMO IV** [retrospectivo, pacientes con CM en hospitales del Grupo GEICAM (2002-2005)]	Jara C, Lopez-Tarruella S, Alvarez I, de la Haba J, Rojo F, Guerrero A, Bezares S, Margelí M, Rodriguez CA, Martinez P, Martinez N, Urruticoechea A, Morales D, Hernando C, Pollán M, Carrasco E, Mori M, Bermejo B, Santaballa A, Batista N	**Póster #49**

2019 American Society of Clinical Oncology (ASCO) Annual Meeting
May 31 - June 4, 2019, Chicago, IL, USA
9 comunicaciones (2 orales, 1 discusión de póster, 6 pósteres)

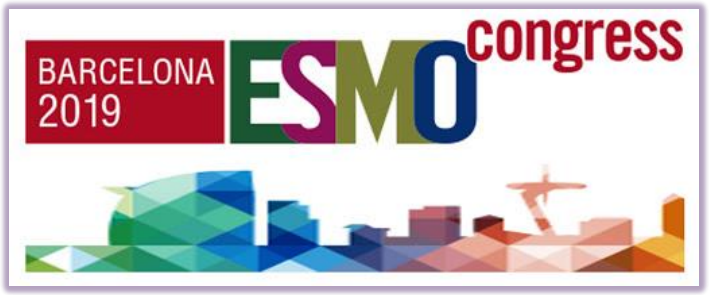
PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
NO	No aplica	No aplica	Oral	Genomic correlates of response to adjuvant trastuzumab (H) and pertuzumab (P) in HER2+ breast cancer (BC): Biomarker analysis of the **APHINITY** trial	Krop IE, Paulson J, Campbell C, Kiermaier AC, Andre F, Fumagalli D, de Haas S, Salgado R, Denkert C, Loibl S, Bailey A, Lewis Phillips G, Frank E, Piccart M, Viale G, Loi S	Clinical Science Symposium: Targeting Breast Cancer: Breaking the Code. Saturday, June 01, 3:00 PM - 4:30 PM. **J Clin Oncol 37, 2019 (suppl; abstr 1012)** DOI: 10.1200/JCO.2019.37.15_suppl.1012
NO	No aplica	No aplica	Póster	Association of drug-related polymorphisms with palbociclib-related neutropenia: Pharmacogenetic analysis of **PALOMA-2/-3** (P2/3)	Iwata H, Fletcher O, Liu Y, Umeyama Y, Zhang Z, Schnell P, Marshall J, Johnson JG, Wood LS, Toi M, Finn RS, Cristofanilli M, Turner NC, Ba CH	Poster Session: Breast Cancer-Metastatic. Sunday, June 02, 8:00 AM - 11:00 AM. **J Clin Oncol 37, 2019 (suppl; abstr 1060)** DOI: 10.1200/JCO.2019.37.15_suppl.1060

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
NO	No aplica	No aplica	Oral	Neoadjuvant trastuzumab (H), pertuzumab (P), and chemotherapy versus trastuzumab emtansine (T-DM1) and P in human epidermal growth factor receptor 2 (HER2)-positive breast cancer (BC): Final outcome results from the phase III **KRISTINE** study	Hurvitz SA, Martin M, Jung K, Huang C, Harbeck N, Valero V, Stroyakovskiy D, Wildiers H, Campone M, Boileau J, Beckmann MW, Afenjar K, Spera G, Lopez Valverde V, Song C, Boulet T, Sparano JA, Symmans WF, Thompson AM, Slamon DJ	Oral Abstract Session: Breast Cancer: Local/Regional/Adjuvant. Monday, June 03, 9:45 AM-12:45 PM. **J Clin Oncol 37, 2019 (suppl; abstr 500)** DOI: 10.1200/JCO.2019.37.15_suppl.500
NO	No aplica	No aplica	Póster Discutido	Event-free survival analysis of the prospectively randomized phase III **ETNA** study with neoadjuvant nab-paclitaxel (nab-P) versus paclitaxel (P) followed by anthracycline regimens in women with HER2-negative high-risk breast cancer	Gianni L, Mansutti M, Anton A, Calvo L, Bisagni G, Bermejo B, Semiglazov V, Thill M, Chacon JI, Chan A, Morales S, Alvarez I, Plazaola A, Zambetti M, Redfern A, Dent R, Barlera S, Valagussa P, Tusquets I	Poster Session: Breast Cancer: Local/Regional/Adjuvant. Sunday, June 02, 8:00 AM - 11:00 AM. Poster Discussion Session: Breast Cancer: Local/Regional/Adjuvant. Sunday, June 02, 4:30 PM - 6:00 PM. **J Clin Oncol 37, 2019 (suppl; abstr 515)** DOI: 10.1200/JCO.2019.37.15_suppl.515
NO	No aplica	No aplica	Póster	Efficacy and safety of talazoparib (TALA) or physician's choice of therapy (PCT) in United States patients (pts) with HER2- germline BRCA1/2-mutated (gBRCAm) locally advanced/metastatic breast cancer (LA/MBC) in the **EMBRACA** study	Diab S, Rugo HS, Mina LA, Puhalla S, Mahtani RL, Henry NL, Denduluri N, Yardley DA, Wang Y, Arruda LS, Tudor IC, Gauthier ER, Czibere AG, Litton JK, Hurvitz SA	Poster Session: Breast Cancer: Metastatic. Sunday, June 02, 8:00 AM - 11:00 AM. **J Clin Oncol 37, 2019 (suppl; abstr 1044)** DOI: 10.1200/JCO.2019.37.15_suppl.1044
NO	No aplica	No aplica	Póster	Outcomes of talazoparib (TALA) versus physician's choice of chemotherapy (PCT) in patients (pts) with advanced breast cancer (ABC) and a germline BRCA (gBRCA) mutation by line of chemotherapy (CT) in the **EMBRACA** trial	Ettl J, Hurvitz SA, Rugo HS, Lee K, Mina LA, Woodward NE, Yerushalmi R, Diab S, Martin M, Tudor IC, Czibere AG, Gauthier ER, Litton JK, Goncalves A	Poster Session: Breast Cancer: Metastatic. Sunday, June 02, 8:00 AM - 11:00 AM. **J Clin Oncol 37, 2019 (suppl; abstr 1071)** DOI: 10.1200/JCO.2019.37.15_suppl.1071
SI	Departamento de Operaciones Clínica	Departamento de Estadística	Póster	First results of a prospective registry in unresectable locally advanced or metastatic breast cancer patients: **GEICAM/2014-03 (RegistEM)**	Jara C, Alvarez I, Margeli M, Rodriguez CA, Martinez P, Batista JN, Alonso JL, Antolin S, Pajares BI, Ruiz A, Tusquets I, Anton A, Chacon	Poster Session: Breast Cancer Metastatic. Sunday, June 2, 2019. **J Clin Oncol 37, 2019 (suppl; abstr 1077)**

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
					JI, Rodriguez-Lescure A, Tibau A, Alvarez E, Miralles JJ, Bezares S, Rojo F, Lopez-Tarruela S	DOI: 10.1200/JCO.2019.37.15_suppl.1077
SI	Departamento de Investigación Traslacional	No aplica	Póster	Evolution of the myeloid-derived suppressor cells in advanced breast cancer and comparative analysis with a healthy population cohort **Datos de pacientes con cáncer de mama avanzado del estudio GEICAM/215-04 (PANGEA-Breast)**	Palazon Carrion N, Jimenez Cortegana C, Holgado E, Cruz J, Alonso JL, Sanchez Leon ML, Sanchez Margalet V, Fernandez Nogales E, Moreno F, Quiroga V, Andres R, Santisteban M, Cortes J, Rodriguez Rodriguez LM, Soto A, Gion M, Nieto-Garcia MA, Chiesa M, Bezares S, de la Cruz Merino L	Poster Session: Developmental immunotherapy and Tumor Immunobiology. Saturday, June 01, 8:00 AM - 11:00 AM. **J Clin Oncol 37, 2019 (suppl; abstr 2543)** DOI: 10.1200/JCO.2019.37.15_suppl.2543
NO	No aplica	No aplica	Póster	**NATALEE**: Phase III study of ribociclib (RIBO) + endocrine therapy (ET) as adjuvant treatment in hormone receptor–positive (HR+), human epidermal growth factor receptor 2–negative (HER2–) early breast cancer (EBC)	Slamon DJ, Fasching PA, Patel R, Verma S, Hurvitz SA, Chia SK, Crown J, Martin M, Barrios CH, Spera G, Lopez C, Hor I, Pelov D, Hughes G, Nawinne M, Hortobagyi GN	Poster Session: Breast Cancer: Local/Regional/Adjuvant. Sunday, June 02, 8:00 AM - 11:00 AM. **J Clin Oncol 37, 2019 (suppl; abstr TPS597)** DOI: 10.1200/JCO.2019.37.15_suppl.TPS597

European Society of Medical Oncology (ESMO) Breast Cancer Annual Congress
2-4 May, 2019, Berlin, Germany
3 comunicaciones (2 orales, 1 póster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
NO	No aplica	No aplica	Oral	Impact of objective response (OR) on patient-reported outcomes (PRO) in patients (pts) with advanced breast cancer (ABC) and a germline BRCA1/2 (gBRCA) mutation in the phase III **EMBRACA** trial	Fasching PA, Quek RGW, Bhattacharyya H, Hurvitz SA, Rugo HS, Ettl J	**Annals of Oncology (2019) 30 (suppl_3): iii47-iii64. 10.1093/annonc/mdz100.** https://oncologypro.esmo.org/Meeting-Resources/ESMO-Breast-Cancer-2019/Impact-of-objective-response-OR-on-patient-reported-outcomes-PRO-in-patients-pts-with-advanced-breast-cancer-ABC-and-a-germline-BRCA1-2-gBRCA-mutation-in-the-phase-III-EMBRACA-trial
NO	No aplica	No aplica	Póster	Hospitalization and supportive care medication (SCM) utilisation in patients (pts) with advanced breast cancer (ABC) and a germline BRCA1/2 mutation (gBRCAm) in **EMBRACA**	Ettl J, Quek RGW, Hurvitz SA, Goncalves A, Tudor IC, Rugo HS	**Annals of Oncology (2019) 30 (suppl_3): iii47-iii64. 10.1093/annonc/mdz100.** https://oncologypro.esmo.org/Meeting-Resources/ESMO-Breast-Cancer-2019/Hospitalization-and-supportive-care-medication-SCM-utilisation-in-patients-pts-with-advanced-breast-cancer-ABC-and-a-germline-BRCA1-2-mutation-gBRCAm-in-EMBRACA
NO	No aplica	No aplica	Oral	First report of **AURORA**, the breast international group (BIG) molecular screening initiative for metastatic breast cancer (MBC) patients (pts)	Aftimos PG, Antunes De Melo e Oliveira AM, Hilbers F, Venet D, Vingiani A, Nili Gal Yam E, Martinez JL, Ndozeng J, Irrthum A, Piccart M	**Annals of Oncology (2019) 30 (suppl_3): iii47-iii64. 10.1093/annonc/mdz100.** https://oncologypro.esmo.org/Meeting-Resources/ESMO-Breast-Cancer-2019/First-report-of-AURORA-the-breast-international-group-BIG-molecular-screening-initiative-for-metastatic-breast-cancer-MBC-patients-pts



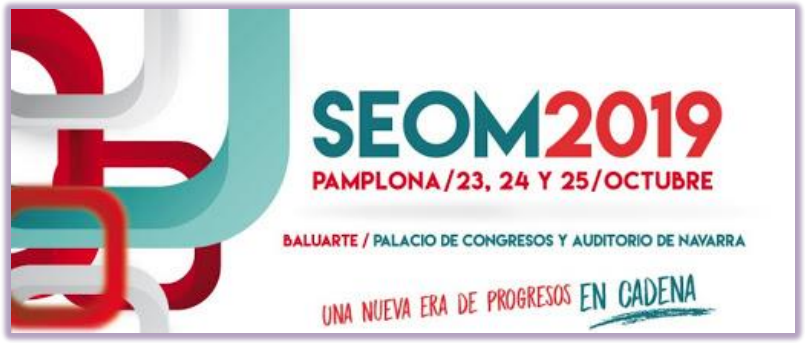
ESMO Congress: Translating science into better cancer patient care
27 September – 1 October, 2019, Barcelona, Spain
1 comunicación (1 póster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Póster	Association of derived neutrophil-to-lymphocyte ratio (dNLR) with pathological complete response (pCR) after neoadjuvant chemotherapy (CT) **GEICAM/2006-03 - NCT00432172: 07 Feb 2007.** **ETNA - NCT01822314: 02 Abr 2013.**	Ocaña A, Chacón J.I, Calvo L, Antón A, Mansutti M, Alba E, Lluch A, Lahuerta A, Bisagni G, Bermejo B, Semiglazov V, Thill M, Chan A, Morales S, Albanell J, Herranz J, Tusquets I, Valagussa P, Chiesa M, Gianni L	**Annals of Oncology, Volume 30, Issue Supplement_5, October 2019, mdz240.094, https://doi.org/10.1093/annonc/mdz240.094.** https://academic.oup.com/annonc/article/30/Supplement_5/mdz240.094/5576502

X Congreso Nacional de Biobancos: 10 años fortaleciendo lazos por una investigación biomédica de calidad
17-18 de octubre de 2019, Valencia
3 comunicaciones (1 oral, 1 póster oral, 1 póster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
No aplica	Departamento de Investigación Traslacional		Oral	Colaboración entre Grupos Cooperativos de Investigación Clínica y Biobancos: ejemplo de la Fundación GEICAM de Investigación en Cáncer de Mama y el Banco Nacional de ADN Carlos III	Almeida Parra M, Carrasco Perea A, Méndez Barreira OM, García Rodríguez AM, Caballero Velázquez R	Comunicación oral: CO-06 https://congresobiobancosvalencia2019.com/wp-content/uploads/2019/12/LIBRO-X-CONGRESO.pdf
No aplica	Departamento de Investigación Traslacional		Póster	Comparativa entre dos sistemas de escaneado y análisis de la imagen para la cuantificación de la señal IHQ: hacia la armonización de la telepatología	Artiga González MJ, Almenara González I, Vieiro Balo P, Fraga Rodríguez M, Belar O, Esteva Socias M, Almeida Parra M, Bahamonde O, Bermudo Gascón R, Escamez Martínez T, Jauregui L, Novoa I, Peiró Chova L, Rabano A, Ruiz Miró M, Serrate A, Villar V, Villena Portella C, Zazo S, Rejón García JD	Póster: P-25-INNC http://biobancos2019.siteonsite.es/poster/55

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
No aplica	Departamento de Investigación Traslacional		Póster oral	Validación de MLH1 y MSH2 como marcadores de calidad asociados a la edad de la muestra en tejido pulmonar parafinado	Rejón García JD, Alenda González C, Iglesias Coma M, Almenara González I, Esteva Socias M, Astudillo González A, Escalante Pérez M, Fraga Rodríguez M, Guerrero C, Almeida Parra M, Arenaz Villalba I, Bahamonde O, Belar O, Bermudo Gascón R, Denuc A, Encabo Berzosa M, Escamez Martínez T, Giraldo Jiménez C, Jauregui L, Novoa I, Peiro Chova L, Rábano A, Rebolledo Poves AB, Ruiz Miró M, Serrate A, Tora M, Vieiro Balo P, Villar V, Villena Portella C, Artiga González MJ	Póster: P-60-OTR http://biobancos2019.siteonsite.es/poster/61



Congreso SEOM2019: Una nueva era de progresos en cadena
23-25 de octubre de 2019, BALAURTE – Palacio de Congresos y Auditorio de Navarra, Pamplona
9 comunicaciones (1 sesión plenaria, 3 orales, 4 pósteres destacados, 1 póster digital)
https://congresoseom.org/2019/wp-content/uploads/Libro_Comunicaciones_%20SEOM2019.pdf

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Oral	Asociación entre el índice neutrófilos/linfocitos (INL) y respuesta patológica completa (RPc) tras quimioterapia (QT) neoadyuvante	Ocaña A, Chacón JI, Calvo L, Antón A, Mansutti M, Alba E, Lluch A, Lahuerta A, Bisagni G, Bermejo B, Semiglazov V, Thill M, Chan A, Morales S, Albanell J, Herranz J, Tusquets I, Valagussa P, Chiesa M, Gianni L	Early breast cancer session: **Abstract O-47** (oral communication)
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Oral (plenaria)	La entropía en el número de copias genómicas predice la respuesta a terapia neoadyuvante en cáncer de mama temprano	Alba E, Lluch A, Albanell J, Chancón López-Muñiz JI, Calvo L, de la Haba-Rodriguez J, Herranz J, Santonja A, Rojo F, Caldas C	Advanced breast cancer session: **Abstract PLE-4** (plenary session)
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Oral	Distribución de subtipos en tumor primario y/o metástasis de los pacientes del registro prospectivo de cáncer de mama (CM) localmente avanzado no resecable (LANR) o metastásico (M): **GEICAM/2014-03 (RegistEM)**	Jara C, Lopez-Tarruella S, Margelí M, Rodriguez CA, Martinez Purificación, Batista JN, Alonso JL, Bezares S, Rojo F, Alvarez I	Advanced breast cancer session: **Abstract O-56** (oral communication)
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Póster digital	Características de los pacientes con subtipo HER2 enriched-like del registro	Alvarez I, Martinez P, Guerrero A, Alonso JL, Rodriguez CA, Chacón JI, Margelí M,	**Abstract EPOSTER-246** (digital poster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
				prospectivo de cáncer de mama (CM) localmente avanzado no resecable (LANR) o metastásico (M): **GEICAM/2014-03 (RegistEM)**	Camara MC, Bezares S, Batista JN	
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Póster destacado	Características de los pacientes con subtipo luminal A-like del registro prospectivo de cáncer de mama (CM) localmente avanzado no resecable (LANR) o metastásico (M): **GEICAM/2014-03 (RegistEM)**	Alvarez I, Batista JN, Rodriguez CA, Margelí M, Martinez P, Arcusa A, Guerrero A, Miralles JJ, Bezares S, Jara C	Advanced breast cancer session: **Abstract P-43** (highlighted poster)
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Póster destacado	Características de los pacientes con subtipo luminal B (HER2 negativo)-like del registro prospectivo de cáncer de mama (CM) localmente avanzado no resecable (LANR) o metastásico (M): **GEICAM/2014-03 (RegistEM)**	Jara C, Rodriguez CA, Margelí M, Martinez P, Antolin S, Batista JN, Falo C, Miralles JJ, Bezares S, Alvarez I	Advanced breast cancer session: **Abstract P-65** (highlighted poster)
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Póster destacado	Características de los pacientes con subtipo luminal B (HER2 positivo)-like del registro prospectivo de cáncer de mama (CM) localmente avanzado no resecable (LANR) o metastásico (M): **GEICAM/2014-03 (RegistEM)**	Jara C, Martinez P, Alvarez E, Rodriguez CA, Alonso JL, Margelí M, Mori M, Escudero MJ, Bezares S, Alvarez I	Advanced breast cancer session: **Abstract P-45** (highlighted poster)
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Póster destacado	Características de los pacientes con subtipo Triple Negativo del registro prospectivo de cáncer de mama (CM) localmente avanzado no resecable (LANR) o metastásico (M): **GEICAM/2014-03 (RegistEM)**	Rodriguez CA, Díaz T, Margelí M, Chacón JI, Guerrero A, Alonso JL, Lao J, Campo R, Bezares S, Alvarez I	Advanced breast cancer session: **Abstract P-44** (highlighted poster)
SI	Departamento de Investigación Traslacional		Oral	Evolución de las células supresoras derivadas de línea mieloide (MDSC) en cáncer de mama avanzado y comparativa con cohorte sana **Datos de pacientes con cáncer de mama avanzado del estudio GEICAM/215-04 (PANGEA-Breast)**	Palazón Carrión N, Jimenez Cortegana C, Holgado E, Cruz J, Alonso JL, Sanchez Leon ML, Sanchez Margalet V, Nogales Fernandez E, Valdivia Garcia FJ, Moreno F, Quiroga V, Andres R, Santisteban M, Cortes J, Rodriguez Rodriguez LM, Soto A, Gion M, Nieto-Garcia MA, Chiesa M, de la Cruz Merino L	Advanced breast cancer session: **Abstract O-55** (oral communication)

San Antonio Breast Cancer Symposium (SABCS)
10-14 December, 2019
San Antonio, Texas, USA
6 comunicaciones (2 orales, 1 póster discutido, 3 pósteres)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
NO	No aplica	No aplica	Oral	Interim overall survival analysis of **APHINITY (BIG 4-11)**: A randomised multicenter, double-blind, placebo-controlled trial comparing chemotherapy plus trastuzumab plus pertuzumab versus chemotherapy plus trastuzumab plus placebo as adjuvant therapy in patients with operable HER2-positive early breast cancer	Piccart M, Procter M, Fumagalli D, de Azambuja E, Clark E, Ewer MS, Restuccia E, Jerusalem G, Dent S, Reaby L, Bonnefoi H, Krop I, Liu T, Pieńkowski T, Toi M, Wilcken N, Andersson M, Im Y, Tseng L, Lueck H, Colleoni M, Monturus E, Sicoe M, Guillaume S, Bines J, Gelber R, Viale G, Thomssen C	General Session GS1 Abstract GS1-04 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr GS1-04. Cancer Res February 14 2020 80 (4 Supplement) GS1-04-GS1-04; DOI: 10.1158/1538-7445.SABCS19-GS1-04 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/GS1-04
SI	Departamento de Investigación Traslacional	No aplica	Póster	Identification of a specific epigenetic signature in patients showing secondary hypertension upon anti-VEGF treatment from the **GEICAM/2011-04 (BRECOL)**	de la Haba J, Morales-Ruiz T, García-Alfonso P, Ponce Lorenzo J, Calvo L, Antón A, Marquez R, Sánchez-Rovira P, Santaballa A, Ciruelos E, García-Ortiz M, Roldán-Arjona T, Herranz J, Chiesa M, Caballero R, Gallego J, Rodríguez-Lescure Á	Poster Session PS4 Poster number P4-10-28 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr P4-10-28. Cancer Res February 14 2020 80 (4 Supplement) P4-10-28-P4-10-28; DOI: 10.1158/1538-7445.SABCS19-P4-10-28 Published February 2020.

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
						https://cancerres.aacrjournals.org/content/80/4_Supplement/P4-10-28
NO	No aplica	No aplica	Póster Discutido	Clinical implication of tumor infiltrating lymphocytes (TILs) in the **ETNA** study	Bianchini G, Smart C, Mansutti M, Anton A, Licata L, Sassi I, Calvo L, Bisagni G, Bermejo B, Semiglazov V, Thill M, Chacon J.I, Chan A, Morales Murillo S, Alvarez I, Lahuerta A, Zucchinelli P, Doglioni C, Viale G, Valagussa P, Tusquet I and Gianni L	Poster Discussion Session PD5 Poster number PD5-05 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr PD5-05. Cancer Res February 14 2020 80 (4 Supplement) PD5-05-PD5-05; DOI: 10.1158/1538-7445.SABCS19-PD5-05 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/PD5-05
NO	No aplica	No aplica	Póster	Prognostic and predictive value of PML in the **ETNA** study and the TCGA	Zambelli S, Smart C, Bernardi R, Sassi I, Mansutti M, Anton A, Calvo L, Bisagni G, Bermejo B, Ugge' M, Galbardi B, Semiglazov V, Thill M, Chacon J.I, Chan A, Morales S, Alvarez I, Lahuerta A, Zucchinelli P, Doglion C, Valagussa P, Tusquets I, Gianni L, Bianchini G	Poster Session PS5 Poster number P5-06-21 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr P5-06-21. Cancer Res February 14 2020 80 (4 Supplement) P5-06-21-P5-06-21; DOI: 10.1158/1538-7445.SABCS19-P5-06-21 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/P5-06-21
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Oral	Results from **PEARL** study **(GEICAM/2013-02_CECOG/BC.1.3.006)**: a phase 3 trial of Palbociclib (PAL) in combination with endocrine therapy (ET) versus Capecitabine (CAPE) in hormonal receptor (HR)-positive/human epidermal growth factor receptor (HER) 2-negative	Martín M, Zielinski C, Ruíz-Borrego M, Carrasco E, Ciruelos E, Muñoz M, Bermejo B, Margeli M, Turner N, Casas M, Antón A, Csöszi T, Corsaro M, Murillo L, Morales S, Alba E, Bartlett CH, Koehler M, Guerrero A, Kahan Z, Gil-Gil M	General Session GS2 Abstract GS2-07 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr GS2-07. Cancer Res February 14 2020 80 (4 Supplement) GS2-07-GS2-07; DOI:

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
				metastatic breast cancer (MBC) patients (pts) whose disease progressed on aromatase inhibitors (AIs)		10.1158/1538-7445.SABCS19-GS2-07 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/GS2-07
SI	Departamento de Investigación Traslacional	Departamento de Estadística	Póster	The MHCII immune activation assay is prognostic for disease free survival in basal-like TNBC breast cancer patients in the **GEICAM/9906** clinical trial	Martín M, Updike KL, Rodríguez-Lescure A, Calvo L, Herranz J, Martín N, Bernard PS, Varley KE	Poster Session PS1 Poster number P1-10-09 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr P1-10-09. Cancer Res February 14 2020 80 (4 Supplement) P1-10-09-P1-10-09; DOI: 10.1158/1538-7445.SABCS19-P1-10-09 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/P1-10-09
SI	Departamento de Operaciones Clínicas	No aplica	Oral	Effects of capecitabine as part of neo-/adjuvant chemotherapy. A meta-analysis of individual patient data from 12 randomized trials including 15,457 patients **GEICAM/2006-11 (LEA)**	van Mackelenbergh M, Seither F, Möbus V, O'Shaugnessy J, Martin M, Joenssuu H, Untch M, Nitz U, Miralles JJ, Toi M, Bear HD, Muss H, Reimer T, Nekljudova V and Loibl S	General Session GS1 Abstract GS1-07 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr GS1-07. Cancer Res February 14 2020 80 (4 Supplement) GS1-07-GS1-07; DOI: 10.1158/1538-7445.SABCS19-GS1-07 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/GS1-07
NO	No aplica	No aplica	Póster	An integrated safety analysis of talazoparib monotherapy from five clinical trials (phase 1-3) in advanced cancers **GEICAM/2013-07_TRIO-023 (EMBRACA)** **GEICAM/2014-04_TRIO-024 (ABRAZO)** **OTROS ESTUDIOS**	Ettl J, Litton J, Rugo HS, Mina L, Martin M, Turner N, Roché H, Wainberg Z, de Bono J, Usari T, Elmeliegy M, Lanzalone S, Czibere A, DeAnnuntis L and Hurvitz SA	Poster Session PS1 Abstract P1-19-29 Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr P1-19-29. Cancer Res February 14 2020 80 (4 Supplement) P1-19-29-P1-19-29;

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
						DOI: 10.1158/1538-7445.SABCS19-P1-19-29 Published February 2020. https://cancerres.aacrjournals.org/content/80/4_Supplement/P1-19-29

ESMO Immuno-Oncology Annual Congress 2019
11-14 December, 2019, Geneva, Switzerland
1 comunicación (póster)

PROMOTOR GEICAM	DEPARTAMENTO GESTOR DE LA PUBLICACIÓN	DEPARTAMENTOS INVOLUCRADOS	TIPO	TÍTULO	AUTORES	REFERENCIA
SI	Departamento de Operaciones Clínicas	Departamento de Estadística	Póster	Results from a phase II trial of pembrolizumab (P) plus gemcitabine (Gem) in patients (pts) with HER2-negative advanced breast cancer (ABC): **GEICAM/2015-04 (PANGEA-Breast)** study	de la Cruz Merino L, Cruz J, Alonso J, Quiroga Garcia V, Moreno Antón F, Andres R, M. Santiesteban M, Ramos Vazquez M, Gion Cortes M, Cortés J, Palazón Carrión N, Ceballos Lenza I, Soto A, Casas M, Benito S, Bezares Montes S, Holgado E	**Ann Oncol, Volume 30, Issue Supplement_11, December 2019, mdz451.011,** https://doi.org/10.1093/annonc/mdz451.011. Poster #271. https://academic.oup.com/annonc/issue/30/Supplement_11

LISTADO DE MANUSCRITOS PUBLICADOS

Artículos de estudios con promotor GEICAM

Estudio GEICAM/2006-10

1. **Phase III evaluating the addition of fulvestrant (F) to anastrozole (A) as adjuvant therapy in postmenopausal women with hormone receptor-positive HER2-negative (HR+/HER2-) early breast cancer (EBC): results from the GEICAM/2006-10 study.**
   Ruíz-Borrego M, Guerrero-Zotano A, Bermejo B, Ramos M, Cruz J, Baena-Cañada JM, Cirauqui B, Rodríguez-Lescure Á, Alba E, Martínez-Jáñez N, Muñoz M, Antolín S, Álvarez I, Del Barco S, Sevillano E, Chacón JI, Antón A, Escudero MJ, Ruiz V, Carrasco E, Martín M; GEICAM.

Breast Cancer Res Treat. 2019 Aug;177(1):115-125. doi: 10.1007/s10549-019-05296-8. Epub 2019 May 31.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Estadística.

Abstract:
PURPOSE: GEICAM/2006-10 compared anastrozole (A) versus fulvestrant plus anastrozole (A + F) to test the hypothesis of whether a complete oestrogen blockade is superior to aromatase inhibitors alone in breast cancer patients receiving hormone adjuvant therapy.
METHODS: Multicenter, open label, phase III study. HR+/HER2- EBC postmenopausal patients were randomized 1:1 to adjuvant A (5 years [year]) or A + F (A plus F 250 mg/4 weeks for 3 year followed by 2 year of A). Stratification factors: prior chemotherapy (yes/no); number of positive lymph nodes (0/1-3/≥ 4); HR status (both positive/one positive) and site.
PRIMARY OBJECTIVE: disease-free survival (DFS). Planned sample size: 2852 patients.
RESULTS: The study has an early stop due to the financer decision with 870 patients (437 randomized to A and 433 to A + F). Patient characteristics were well balanced. After a median follow-up of 6.24y and 111 DFS events (62 in A and 49 in A + F) the Hazard Ratio for DFS (combination vs. anastrozole) was 0.84 (95% CI 0.58-1.22; p = 0.352). The proportion of patients disease-free in arms A and A + F at 5 year and 7 year were 90.8% versus 91% and 83.6% versus 86.7%, respectively. Most relevant G2-4 toxicities (≥ 5% in either arm) with A versus A + F were joint pain (14.7%; 13.7%), fatigue (2.5%; 7.2%), bone pain (3%; 6.5%), hot flushes (3.5%; 5%) and muscle pain (2.8%; 5.1%).
CONCLUSIONS: The GEICAM/2006-10 study did not show a statistically significant increase in DFS by adding adjuvant F to A, though no firm conclusions can be drawn because of the limited sample size due to the early stop of the trial. ClinicalTrials.gov: NCT00543127.

Estudio GEICAM/2003-11_CIBOMA/2004-01

2. **Phase III Trial of Adjuvant Capecitabine After Standard Neo-/Adjuvant Chemotherapy in Patients With Early Triple-Negative Breast Cancer (GEICAM/2003-11_CIBOMA/2004-01).**
   Lluch A, Barrios CH, Torrecillas L, Ruiz-Borrego M, Bines J, Segalla J, Guerrero-Zotano Á, García-Sáenz JA, Torres R, de la Haba J, García-Martínez E, Gómez HL, Llombart A, Bofill JS, Baena-Cañada JM, Barnadas A, Calvo L, Pérez-Michel L, Ramos M, Fernández I, Rodríguez-Lescure Á, Cárdenas J, Vinholes J, Martínez de Dueñas E, Godes MJ, Seguí MA, Antón A, López-Álvarez P, Moncayo J, Amorim G, Villar E, Reyes S, Sampaio C, Cardemil B, Escudero MJ, Bezares S, Carrasco E, Martín M; GEICAM Spanish Breast Cancer Group; CIBOMA (Iberoamerican Coalition for Research in Breast Oncology); and LACOG (Latin American Cooperative Oncology Group).

J Clin Oncol. 2020 Jan 20;38(3):203-213. doi: 10.1200/JCO.19.00904. Epub 2019 Dec 5.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Estadística e Investigación Traslacional.

Abstract:
PURPOSE: Operable triple-negative breast cancers (TNBCs) have a higher risk of relapse than non-TNBCs with standard therapy. The GEICAM/2003-11_CIBOMA/2004-01 trial explored extended adjuvant capecitabine after completion of standard chemotherapy in patients with early TNBC.
PATIENTS AND METHODS: Eligible patients were those with operable, node-positive-or node negative with tumor 1 cm or greater-TNBC, with prior anthracycline- and/or taxane-containing chemotherapy. After central confirmation of TNBC status by immunohistochemistry, patients were randomly assigned to either capecitabine or observation. Stratification factors included institution, prior taxane-based therapy, involved axillary lymph nodes, and centrally determined

phenotype (basal v non-basal, according to cytokeratins 5/6 and/or epidermal growth factor receptor positivity by immunohistochemistry). The primary objective was to compare disease-free survival (DFS) between both arms.
RESULTS: Eight hundred seventy-six patients were randomly assigned to capecitabine (n = 448) or observation (n = 428). Median age was 49 years, 55.9% were lymph node negative, 73.9% had a basal phenotype, and 67.5% received previous anthracyclines plus taxanes. Median length of follow-up was 7.3 years. DFS was not significantly prolonged with capecitabine versus observation [hazard ratio (HR), 0.82; 95% CI, 0.63 to 1.06; P = .136]. In a preplanned subgroup analysis, non-basal patients seemed to derive benefit from the addition of capecitabine with a DFS HR of 0.53 versus 0.94 in those with basal phenotype (interaction test P = .0694) and an HR for overall survival of 0.42 versus 1.23 in basal phenotype (interaction test P = .0052). Tolerance of capecitabine was as expected, with 75.2% of patients completing the planned 8 cycles.
CONCLUSION: This study failed to show a statistically significant increase in DFS by adding extended capecitabine to standard chemotherapy in patients with early TNBC. In a preplanned subset analysis, patients with non-basal phenotype seemed to obtain benefit with capecitabine, although this will require additional validation.

Estudio MABOMET

3. BOMET-QoL-10 questionnaire for breast cancer patients with bone metastasis: the prospective MABOMET GEICAM study.

Barnadas A, Muñoz M, Margelí M, Chacón JI, Cassinello J, Antolin S, Adrover E, Ramos M, Carrasco E, Jimeno MA, Ojeda B, González X, González S, Constenla M, Florián J, Miguel A, Llombart A, Lluch A, Ruiz-Borrego M, Colomer R, Del Barco S; GEICAM, Spanish Breast Cancer Group.

J Patient Rep Outcomes. 2019 Dec 21;3(1):72. doi: 10.1186/s41687-019-0161-y.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Puesta en Marcha y Científico.

Abstract:
BACKGROUND: Bone metastasis (BM) is the most common site of disease in metastatic breast cancer (MBC) patients. BM impacts health-related quality of life (HRQoL). We tested prospectively the psychometric properties of the Bone Metastasis Quality of Life (BOMET-QoL-10) measure on MBC patients with BM.
METHODS: Patients completed the BOMET-QoL-10 questionnaire, the Visual Analogue Scale (VAS) for pain, and a self-perceived health status item at baseline and at follow-up visits. We performed psychometric tests and calculated the effect size of specific BM treatment on patients´ HRQoL.
RESULTS: Almost 70% of the 172 patients reported symptoms, 23.3% experienced irruptive pain, and over half were receiving chemotherapy. BOMET-QoL-10 proved to be a quick assessment tool performing well in readability and completion time (about 10 min) with 0-1.2% of missing/invalid data. Although BOMET-QoL-10 scores remained fairly stable during study visits, differences were observed for patient subgroups (e.g., with or without skeletal-related events or adverse effects). Scores were significantly correlated with physician-reported patient status, patient-reported pain, symptoms, and perceived health status. BOMET-QoL-10 scores also varied prospectively according to changes in pain intensity.
CONCLUSIONS: BOMET-QoL-10 performed well as a brief, easy-to-administer, useful, and sensitive HRQoL measure for potential use for clinical practice with MBC patients.
TRIAL REGISTRATION: NCT03847220. Retrospectively registered on clinicaltrials.gov (February the 20th 2019).

Estudio GEICAM/2006-11 (LEA)

4. Evaluating the addition of bevacizumab to endocrine therapy as first-line treatment for hormone receptor-positive metastatic breast cancer: a pooled analysis from the LEA (GEICAM/2006-11_GBG51) and CALGB 40503 (Alliance) trials.

Martín M, Loibl S, Hyslop T, De la Haba-Rodríguez J, Aktas B, Cirrincione CT, Mehta K, Barry WT, Morales S, Carey LA, Garcia-Saenz JA, Partridge A, Martinez-Jañez N, Hahn O, Winer E, Guerrero-Zotano A, Hudis C, Casas M, Rodriguez-Martin C, Furlanetto J, Carrasco E, Dickler MN; GEICAM Spanish Breast Cancer Group; GBG (German Breast Group); Alliance for Clinical Trials in Oncology (Alliance).

Eur J Cancer. 2019 Aug;117:91-98. doi: 10.1016/j.ejca.2019.06.002. Epub 2019 Jul 2.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Estadística.

Abstract:
BACKGROUND: Randomised trials comparing the efficacy of standard endocrine therapy (ET) versus experimental ET + bevacizumab (Bev) in 1st line hormone receptor-positive patients with metastatic breast cancer have thus far shown conflicting results.
PATIENTS AND METHODS: We pooled data from two similar phase III randomised trials of ET ± Bev (LEA and Cancer and Leukemia Group B 40503) to increase precision in estimating treatment effect. Primary end-point was progression-free survival (PFS). Secondary end-points were overall survival (OS), objective response rate (ORR), clinical benefit

rate (CBR) and safety. Exploratory analyses were performed within subgroups defined by patients with recurrent disease, de novo disease, prior endocrine sensitivity or resistance and reported grades III-IV hypertension and proteinuria.
RESULTS: The pooled sample consisted of 749 patients randomised to ET or ET + Bev. Median PFS was 14.3 months for ET versus 19 months for ET + Bev (unadjusted hazard ratio [HR] 0.77; 95% confidence interval [CI] 0.66-0.91; p < 0.01). ORR and CBR with ET and ET + Bev were 40 versus 61% (p < 0.01) and 64 versus 77% (p < 0.01), respectively. There was no difference in OS (HR 0.96; 95% CI 0.77-1.18; p = 0.68). PFS was superior for ET + Bev for endocrine-sensitive patients (HR 0.68; 95% CI 0.53-0.89; p = 0.004). Grade III-IV hypertension (2.2 versus 20.1%), proteinuria (0 versus 9.3%), cardiovascular (0.5 versus 4.2%) and liver events (0 versus 2.9%) were significantly higher for ET + Bev (all p < 0.01). Hypertension and proteinuria were not predictors of efficacy (interaction test p = 0.33).
CONCLUSION: The addition of Bev to ET increased PFS overall and in endocrine-sensitive patients but not OS at the expense of significant additional toxicity.
TRIALS REGISTRATION: ClinicalTrial.Gov NCT00545077 and NCT00601900.

Estudio EL ÁLAMO

5. Survival impact of primary tumor resection in de novo metastatic breast cancer patients (GEICAM/El Alamo Registry).

Lopez-Tarruela S, Escudero MJ, Pollan M, Martín M, Jara C, Bermejo B, Guerrero-Zotano A, García-Saenz J, Santaballa A, Alba E, Andrés R, Martínez P, Calvo L, Fernández A, Batista N, Llombart-Cussac A, Antón A, Lahuerta A, de la Haba J, López-Vega JM, Carrasco E.

Sci Rep. 2019 Dec 27;9(1):20081. doi: 10.1038/s41598-019-55765-9.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Estadística.

Abstract:
The debate about surgical resection of primary tumor (PT) in de novo metastatic breast cancer (MBC) patients persists. We explored this approach's outcomes in patients included in a retrospective registry, named El Álamo, of breast cancer patients diagnosed in Spain (1990-2001). In this analysis we only included de novo MBC patients, 1415 of whom met the study's criteria. Descriptive, Kaplan-Meier and Cox regression analyses were carried out. Median age was 63.1 years, 49.2% of patients had single-organ metastasis (skin/soft tissue [16.3%], bone [33.8%], or viscera [48.3%]). PT surgery (S) was performed in 44.5% of the cases. S-group patients were younger, had smaller tumors, higher prevalence of bone and oligometastatic disease, and lower prevalence of visceral involvement. With a median follow-up of 23.3 months, overall survival (OS) was 39.6 versus 22.4 months (HR = 0.59, p < 0.0001) in the S- and non-S groups, respectively. The S-group OS benefit remained statistically and clinically significant regardless of metastatic location, histological type, histological grade, hormone receptor status and tumor size. PT surgery (versus no surgery) was associated with an OS benefit suggesting that loco-regional PT control may be considered in selected MBC patients. Data from randomized controlled trials are of utmost importance to confirm these results.

Estudio EL ÁLAMO

6. Evolution of older patients diagnosed with early breast cancer in Spain between 1998 and 2001 included in El Alamo III project.

Torregrosa MD, Escudero MJ, Paredero I, Carrasco E, Bermejo B, Gavila J, García-Saenz J, Santaballa A, Martínez P, Llombart A, Andrés R, Batista N, Fernández A, Antón A, Seguí M, Gonzalez S, Ruiz A; GEICAM, the Spanish Breast Cancer Group.

Clin Transl Oncol. 2019 Dec;21(12):1746-1753. doi: 10.1007/s12094-019-02189-6. Epub 2019 Aug 5.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Científico y Estadística.

Abstract:
INTRODUCTION: An increase in the number of cancer cases is expected in the near future. Breast cancer (BC) mortality rates increase with age even when adjusted for other variables. Here we analyzed BC disease-free survival (BCDFS) and BC specific survival (BCSS) in the El Alamo III BC registry of GEICAM Spanish Breast Cancer Group.
MATERIALS AND METHODS: El Alamo III is a retrospective registry of BC patients diagnosed between 1998 and 2001. Patients with stage I-III invasive BC of age groups 55-64 years (y), 70-74 years and ≥ 75 years were included. Patients and tumors characteristics, treatments and recurrences and deaths were analyzed.
RESULTS: 4343 patients were included within the following age intervals: 2288 (55-64 years), 960 (70-74 years), and 1095 (≥ 75 years). Older patients (≥ 70 years) were diagnosed with more advanced tumors (stage III) than younger patients (21.5% versus 13.4%, p < 0.0001). Mastectomies were performed more on older patients and they received less chemotherapy than younger patients (66.6% versus 43.1%, p < 0.00001 and 30.8% versus 71.6%, p < 0.0001, respectively). With a median follow-up of 5.9 years, 17.7% patients had BCDFS events in the younger group and 19.8%

in the older group (p < 0.0001). A decrease in BCSS was also observed in older patients, either when analyzing patients ≥ 70y (p < 0.0001) and when differentiating by the two older groups (p < 0.0001).
CONCLUSIONS: Our study suggests that older BC patients have worse outcomes what can be a consequence of receiving inadequate adjuvant treatments. Specific trials for these patients are warranted to allow us to treat them with the same scientific rigor than younger patients.

Estudio GEICAM/2010-04

7. **Efficacy and safety of dasatinib with trastuzumab and paclitaxel in first line HER2-positive metastatic breast cancer: results from the phase II GEICAM/2010-04 study.**
   Ocana A, Gil-Martin M, Antolín S, Atienza M, Montaño Á, Ribelles N, Urruticoechea A, Falcón A, Pernas S, Orlando J, Montero JC, Escudero MJ, Benito S, Caballero R, Carrasco E, Rojo F, Pandiella A, Ruiz-Borrego M.

Breast Cancer Res Treat. 2019 Apr;174(3):693-701. doi: 10.1007/s10549-018-05100-z. Epub 2019 Jan 3.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Estadística e Investigación Traslacional.
Abstract:
BACKGROUND: An important proportion of HER2-positive metastatic breast cancer patients do not respond to trastuzumab. The combination of dasatinib and trastuzumab has shown to be synergistic in preclinical models.
METHODS: We conducted a phase II trial combining dasatinib 100 mg once daily with trastuzumab 2 mg/kg and paclitaxel 80 mg/m2 weekly. Primary objective was objective response rate (ORR) and secondary included safety, other efficacy parameters and pharmacodynamics in tumour tissue, blood samples and skin biopsies.
RESULTS: From June 2013 to December 2015, 29 patients were included. Median number of cycles was 12 (1-49). Only 6 patients discontinued due to adverse events. ORR was 79.3% (95% CI 60.3-92), clinical benefit rate 82.8% (95% CI 64.2-94.2). Median time to progression 23.9 months (95% CI 14.9-not reached [NR]), median progression-free survival 23.9 months (95% CI 10.3-NR). No grade 4 toxicity was seen. Grade 3 toxicities included: ejection fraction decrease, neutropenia, hyponatremia, fatigue and sensory neuropathy and one left ventricular systolic dysfunction. Phosphorylated (p)-SRC was reduced in peripheral blood mononuclear cells. Phosphorylated SRC, ERK and AKT were also reduced in epidermal keratinocytes.
CONCLUSIONS: Dasatinib can be safely combined with trastuzumab and paclitaxel. The combination is active with an ORR of almost 80%.
TRIAL REGISTRATION: NCT01306942, EudraCT 2010-023304-27.

Estudio GEICAM/2009-03 (ConvertHER)

8. **Dynamic clonal remodelling in breast cancer metastases is associated with subtype conversion.**
   Lluch A, González-Angulo AM, Casadevall D, Eterovic AK, Martínez de Dueñas E, Zheng X, Guerrero-Zotano Á, Liu S, Pérez R, Chen K, Chacón JI, Mills GB, Antolín S, Blancas I, López-Serra P, Carrasco E, Caballero R, Prat A, Rojo F, Gonzalez-Perez A, Meric-Bernstam F, Albanell J.

Eur J Cancer. 2019 Oct;120:54-64. doi: 10.1016/j.ejca.2019.07.003. Epub 2019 Sep 4.

Departamento gestor de la publicación: Investigación Traslacional.
Departamentos involucrados: no aplica.
Abstract:
BACKGROUND: Changes in the clinical subtype (CS) and intrinsic subtype (IS) between breast cancer (BC) metastases and corresponding primary tumours have been reported. However, their relationship with tumour genomic changes remains poorly characterised. Here, we analysed the association between genomic remodelling and subtype conversion in paired primary and metastatic BC samples.
METHODS: A total of 57 paired primary and metastatic tumours from GEICAM/2009-03 (ConvertHER, NCT01377363) study participants with centrally assessed CS (n = 57) and IS (n = 46) were analysed. Targeted capture and next-generation sequencing of 202 genes on formalin-fixed paraffin-embedded samples was performed. The cancer cell fraction (CCF) of mutations in primary and metastatic pairs was estimated as a surrogate of tumour clonal architecture. Changes in mutation CCF between matched primary and metastatic tumours were analysed in the presence or absence of subtype conversion.
FINDINGS: CS conversion occurred in 24.6% and IS conversion occurred in 36.9% of metastases. Primary tumours and metastases had a median of 11 (range, 3-29) and 9 (range, 1-38) mutations, respectively (P = 0.05). Overall, mutations in metastases showed a higher estimated CCF than in primary tumours (median CCF, 0.51 and 0.47, respectively; P = 0.042), consistent with increased clonal homogeneity. The increase in mutation CCF was significant in CS-converted (P = 0.04) but not in IS-converted (P = 0.48) metastases. Clonal remodelling was highest in metastases from hormone receptor-positive and human epidermal growth factor 2 (HER2)-positive tumours (P = 0.006).

CONCLUSIONS: Mutations in BC metastases showed significantly higher estimated CCF than primary tumours. CCF changes were more prominent in metastases with CS conversion. Our findings suggest that changes in BC subtypes are linked to clonal remodelling during BC evolution.

Estudio GEICAM/2009-03 (ConvertHER)

9. Detection of breast cancer stem cell gene mutations in circulating free DNA during the evolution of metastases.

Liu Z, Ezzedine NE, Eterovic AK, Ensor JE, Huang HJ, Albanell J, Choi DS, Lluch A, Liu Y, Rojo F, Wong H, Martinez de Dueñas E, Guerrero A, Gonzalez Angulo AM, Yu K, Shao Z, Yang W, Darcourt JG, Oblitas JAP, Gomez HL, Mills GB, Dave B, Chang JC.

Breast Cancer Res Treat. 2019 Nov;178(2):251-261. doi: 10.1007/s10549-019-05374-x. Epub 2019 Aug 6.

Departamento gestor de la publicación: Investigación Traslacional.
Departamentos involucrados: no aplica.

Abstract:
PURPOSE: Limited knowledge exists on the detection of breast cancer stem cell (BCSC)-related mutations in circulating free DNA (cfDNA) from patients with advanced cancers. Identification of new cancer biomarkers may allow for earlier detection of disease progression and treatment strategy modifications.
METHODS: We conducted a prospective study to determine the feasibility and prognostic utility of droplet digital polymerase chain reaction (ddPCR)-based BCSC gene mutation analysis of cfDNA in patients with breast cancer.
RESULTS: Detection of quantitative BCSC gene mutation in cfDNA by ddPCR mirrors disease progression and thus may represent a valuable and cost-effective measure of tumor burden. We have previously shown that hematological and neurological expressed 1-like (HN1L), ribosomal protein L39 (RPL39), and myeloid leukemia factor 2 (MLF2) are novel targets for BCSC self-renewal, and targeting these genetic alterations could be useful for personalized genomic-based therapy.
CONCLUSION: BCSC mutation detection in cfDNA may have important implications for diagnosis, prognosis, and serial monitoring.

Estudio GEICAM/2003-02 Y GEICAM/9906

10. Prediction of chemotherapy benefit by EndoPredict in patients with breast cancer who received adjuvant endocrine therapy plus chemotherapy or endocrine therapy alone.

Sestak I, Martín M, Dubsky P, Kronenwett R, Rojo F, Cuzick J, Filipits M, Ruiz A, Gradishar W, Soliman H, Schwartzberg L, Buus R, Hlauschek D, Rodríguez-Lescure A, Gnant M.

Breast Cancer Res Treat. 2019 Jul;176(2):377-386. doi: 10.1007/s10549-019-05226-8. Epub 2019 Apr 30.

Departamento gestor de la publicación: Investigación Traslacional.
Departamentos involucrados: no aplica.

Abstract:
PURPOSE: EndoPredict (EPclin) is a prognostic test validated to inform decisions on adjuvant chemotherapy to endocrine therapy alone for patients with oestrogen receptor-positive, HER2-negative breast cancer. Here, we determine the performance of EPclin for estimating 10-year distant recurrence-free interval (DRFI) rates for those who received adjuvant endocrine therapy (ET) alone compared to those with chemotherapy plus endocrine therapy (ET + C).
METHODS: A total of 3746 women were included in this joint analysis. 2630 patients received 5 years of ET alone (ABCSG-6/8, TransATAC) and 1116 patients received ET + C (GEICAM 2003-02/9906). The primary objective was to evaluate the ability of EPclin to provide an estimate of the 10-year DR rate as a continuous function of EPclin separately for ET alone and ET + C. Cox proportional hazard models were used for these analyses.
RESULTS: EPclin was highly prognostic for DR in women who received ET alone (HR 2.79 (2.49-3.13), P < 0.0001) as well as in those who received ET + C (HR 2.27 (1.99-2.59), P < 0.0001). Women who received ET + C had significantly smaller increases in 10-year DR rates with the increasing EPclin score than those receiving ET alone (EPclin = 5; 12% ET + C vs. 20% ET alone). We observed a significant positive interaction between EPclin and treatment groups (P-interaction = 0.022).
CONCLUSIONS: In this comparative non-randomised analysis, the rate of increase in DR with EPclin score was significantly reduced in women who received ET + C versus ET alone. Our indirect comparisons suggest that a high EPclin score can predict chemotherapy benefit in women with ER-positive, HER2-negative disease.

Estudio GEICAM/9906

11. Re-interpretation of PAM50 gene expression as quantitative tumor dimensions shows utility for clinical trials: application to prognosis and response to paclitaxel in breast cancer.

Camp NJ, Madsen MJ, Herranz J, Rodríguez-Lescure Á, Ruiz A, Martín M, Bernard PS.

Breast Cancer Res Treat. 2019 May;175(1):129-139. doi: 10.1007/s10549-018-05097-5. Epub 2019 Jan 23.

Departamento gestor de la publicación: Investigación Traslacional.
Departamentos involucrados: Estadística.

Abstract:
BACKGROUND: We recently showed PAM50 gene expression data can be represented by five quantitative, orthogonal, multi-gene breast tumor traits. These novel tumor 'dimensions' were superior to categorical intrinsic subtypes for clustering in high-risk breast cancer pedigrees, indicating potential to represent underlying genetic susceptibilities and biological pathways. Here we explore the prognostic and predictive utility of these dimensions in a sub-study of GEICAM/9906, a Phase III randomized prospective clinical trial of paclitaxel in breast cancer.
METHODS: Tumor dimensions, PC1-PC5, were calculated using pre-defined coefficients. Univariable and multivariable Cox proportional hazards (PH) models for disease-free survival (DFS) were used to identify associations between quantitative dimensions and prognosis or response to the addition of paclitaxel. Results were illustrated using Kaplan-Meier curves.
RESULTS: Dimensions PC1 and PC5 were associated with DFS (Cox PH p = 6.7 [Formula: see text] 10-7 and p = 0.036), remaining significant after correction for standard clinical-pathological prognostic characteristics. Both dimensions were selected in the optimal multivariable model, together with nodal status and tumor size (Cox PH p = 1.4 [Formula: see text] 10-12). Interactions with treatment were identified for PC3 and PC4. Response to paclitaxel was restricted to tumors with low PC3 and PC4 (log-rank p = 0.0021). Women with tumors high for PC3 or PC4 showed no survival advantage.
CONCLUSIONS: Our proof-of-concept application of quantitative dimensions illustrated novel findings and clinical utility beyond standard clinical-pathological characteristics and categorical intrinsic subtypes for prognosis and predicting chemotherapy response. Consideration of expression data as quantitative tumor dimensions offers new potential to identify clinically important patient subsets in clinical trials and advance precision medicine.

Estudio EpiGEICAM

12. Overeating, caloric restriction and breast cancer risk by pathologic subtype: the EPIGEICAM study.

Lope V, Martín M, Castelló A, Ruiz A, Casas AM, Baena-Cañada JM, Antolín S, Ramos-Vázquez M, García-Sáenz JÁ, Muñoz M, Lluch A, de Juan-Ferré A, Jara C, Sánchez-Rovira P, Antón A, Chacón JI, Arcusa A, Jimeno MA, Bezares S, Vioque J, Carrasco E, Pérez-Gómez B, Pollán M.

Sci Rep. 2019 Mar 7;9(1):3904. doi: 10.1038/s41598-019-39346-4.

Departamento gestor de la publicación: Operaciones Clínicas.
Departamentos involucrados: Investigación Traslacional.

Abstract:
This study analyzes the association of excessive energy intake and caloric restriction with breast cancer (BC) risk taking into account the individual energy needs of Spanish women. We conducted a multicenter matched case-control study where 973 pairs completed lifestyle and food frequency questionnaires. Expected caloric intake was predicted from a linear regression model in controls, including calories consumed as dependent variable, basal metabolic rate as an offset and physical activity as explanatory. Overeating and caloric restriction were defined taking into account the 99% confidence interval of the predicted value. The association with BC risk, overall and by pathologic subtype, was evaluated using conditional and multinomial logistic regression models. While premenopausal women that consumed few calories (>20% below predicted) had lower BC risk (OR = 0.36; 95% CI = 0.21-0.63), postmenopausal women with an excessive intake (≥40% above predicted) showed an increased risk (OR = 2.81; 95% CI = 1.65-4.79). For every 20% increase in relative (observed/predicted) caloric intake the risk of hormone receptor positive (p-trend < 0.001) and HER2+ (p-trend = 0.015) tumours increased 13%, being this figure 7% for triple negative tumours. While high energy intake increases BC risk, caloric restriction could be protective. Moderate caloric restriction, in combination with regular physical activity, could be a good strategy for BC prevention.

Artículos de estudios con promotor no GEICAM

ESTUDIO GEICAM/2010-03 (D-CARE)

13. Adjuvant denosumab in early breast cancer (D-CARE): an international, multicentre, randomised, controlled, phase 3 trial.

Coleman R, Finkelstein DM, Barrios C, Martin M, Iwata H, Hegg R, Glaspy J, Periañez AM, Tonkin K, Deleu I, Sohn J, Crown J, Delaloge S, Dai T, Zhou Y, Jandial D, Chan A.

Lancet Oncol. 2020 Jan;21(1):60-72. doi: 10.1016/S1470-2045(19)30687-4. Epub 2019 Dec 2.

Abstract:
BACKGROUND: Denosumab is a fully human monoclonal antibody that binds to, and inhibits, the receptor activator of RANKL (TNFSF11) and might affect breast cancer biology, as shown by preclinical evidence. We aimed to assess whether denosumab combined with standard-of-care adjuvant or neoadjuvant systemic therapy and locoregional treatments would increase bone metastasis-free survival in women with breast cancer.
METHOD: In this international, double-blind, randomised, placebo-controlled, phase 3 study (D-CARE), patients were recruited from 389 centres in 39 countries. We enrolled women (aged ≥ 18 years) with histologically confirmed stage II or III breast cancer and an Eastern Cooperative Oncology Group performance status of 0 or 1. On eligibility confirmation, investigators at each site telephoned an interactive voice response system to centrally randomly assign patients (1:1) based on a fixed stratified permuted block randomisation list (block size 4) to receive either denosumab (120 mg) or matching placebo subcutaneously every 3-4 weeks, starting with neoadjuvant or adjuvant chemotherapy, for about 6 months and then every 12 weeks for a total duration of 5 years. Stratification factors were breast cancer therapy, lymph node status, hormone receptor and HER2 status, age, and geographical region. The primary endpoint was the composite endpoint of bone metastasis-free survival. This trial is registered with ClinicalTrials.gov, NCT01077154.
FINDINGS: Between June 2, 2010, and Aug 24, 2012, 4509 women were randomly assigned to receive denosumab (n=2256) or placebo (n=2253) and included in the intention-to-treat analysis. The primary analysis of the study was done when all patients had the opportunity to complete 5 years of follow-up with an analysis data cutoff date of Aug 31, 2017. The primary endpoint of bone metastasis-free survival was not significantly different between the groups (median not reached in either group; hazard ratio 0·97, 95% CI 0·82-1·14; p=0·70). The most common grade 3 or worse treatment-emergent adverse events, reported in patients who had at least one dose of the investigational product (2241 patients with denosumab vs 2218 patients with placebo), were neutropenia (340 [15%] vs 328 [15%]), febrile neutropenia (112 [5%] vs 142 [6%]), and leucopenia (62 [3%] vs 61 [3%]). Positively adjudicated osteonecrosis of the jaw occurred in 122 (5%) of 2241 patients treated with denosumab versus four (<1%) of 2218 patients treated with placebo; treatment-emergent hypocalcaemia occurred in 152 (7%) versus 82 (4%). Two treatment-related deaths occurred in the placebo group due to acute myeloid leukaemia and depressed level of consciousness.
INTERPRETATION: Despite preclinical evidence suggesting RANKL inhibition might delay bone metastasis or disease recurrence in patients with early-stage breast cancer, in this study, denosumab did not improve disease-related outcomes for women with high-risk early breast cancer.

Early Breast Cancer Trialists' Collaborative Group (EBCTCG)

14. Increasing the dose intensity of chemotherapy by more frequent administration or sequential scheduling: a patient-level meta-analysis of 37298 women with early breast cancer in 26 randomised trials.

Lancet. 2019 Apr 6;393(10179):1440-1452. doi: 10.1016/S0140-6736(18)33137-4. Epub 2019 Feb 8.

Abstract:
BACKGROUND: Increasing the dose intensity of cytotoxic therapy by shortening the intervals between cycles, or by giving individual drugs sequentially at full dose rather than in lower-dose concurrent treatment schedules, might enhance efficacy.
METHODS: To clarify the relative benefits and risks of dose-intense and standard-schedule chemotherapy in early breast cancer, we did an individual patient-level meta-analysis of trials comparing 2-weekly versus standard 3-weekly schedules, and of trials comparing sequential versus concurrent administration of anthracycline and taxane chemotherapy. The primary outcomes were recurrence and breast cancer mortality. Standard intention-to-treat log-rank analyses, stratified by age, nodal status, and trial, yielded dose-intense versus standard-schedule first-event rate ratios (RRs).
FINDINGS: Individual patient data were provided for 26 of 33 relevant trials identified, comprising 37 298 (93%) of 40 070 women randomised. Most women were aged younger than 70 years and had node-positive disease. Total cytotoxic drug usage was broadly comparable in the two treatment arms; colony-stimulating factor was generally used in the more dose-intense arm. Combining data from all 26 trials, fewer breast cancer recurrences were seen with dose-intense than with standard-schedule chemotherapy (10-year recurrence risk 28·0% vs 31·4%; RR 0·86, 95% CI 0·82-0·89; p<0·0001). 10-year breast cancer mortality was similarly reduced (18·9% vs 21·3%; RR 0·87, 95% CI 0·83-0·92; p<0·0001), as was all-cause mortality (22·1% vs 24·8%; RR 0·87, 95% CI 0·83-0·91; p<0·0001). Death without recurrence was, if anything, lower with dose-intense than with standard-schedule chemotherapy (10-year risk 4·1% vs 4·6%; RR 0·88, 95% CI 0·78-0·99; p=0·034). Recurrence reductions were similar in the seven trials (n=10 004) that compared 2-weekly chemotherapy with the same chemotherapy given 3-weekly (10-year risk 24·0% vs 28·3%; RR 0·83, 95% CI 0·76-0·91; p<0·0001), in the six trials (n=11 028) of sequential versus concurrent anthracycline plus taxane chemotherapy (28·1% vs 31·3%; RR 0·87, 95% CI 0·80-0·94; p=0·0006), and in the six trials (n=6532) testing both shorter intervals and sequential administration (30·4% vs 35·0%; RR 0·82, 95% CI 0·74-0·90; p<0·0001). The proportional reductions in recurrence with dose-intense chemotherapy were similar and highly significant (p<0·0001) in oestrogen receptor (ER)-positive and ER-negative disease and did not differ significantly by other patient or tumour characteristics.
INTERPRETATION: Increasing the dose intensity of adjuvant chemotherapy by shortening the interval between treatment cycles, or by giving individual drugs sequentially rather than giving the same drugs concurrently, moderately reduces the 10-year risk of recurrence and death from breast cancer without increasing mortality from other causes.

FUNDING: Cancer Research UK, Medical Research Council.
Comment in Improving chemotherapy outcome in early breast cancer. [Gland Surg. 2019].

ESTUDIO GEICAM/2013-07 (EMBRACA)

15. Talazoparib in Patients with a Germline BRCA-Mutated Advanced Breast Cancer: Detailed Safety Analyses from the Phase III EMBRACA Trial.

Hurvitz SA, Gonçalves A, Rugo HS, Lee KH, Fehrenbacher L, Mina LA, Diab S, Blum JL, Chakrabarti J, Elmeliegy M, DeAnnuntis L, Gauthier E, Czibere A, Tudor IC, Quek RGW, Litton JK, Ettl J.

Oncologist. 2019 Nov 25. pii: theoncologist.2019-0493. doi: 10.1634/theoncologist.2019-0493. [Epub ahead of print].

Abstract:

BACKGROUND: In the EMBRACA phase III study (NCT01945775), talazoparib was associated with a significantly prolonged progression-free survival (PFS) compared with physician's choice of chemotherapy (PCT) in germline BRCA1/2-mutated HER2-negative advanced breast cancer (ABC). Herein, the safety profile of talazoparib is explored in detail.

MATERIALS AND METHODS: Overall, 412 patients received ≥1 dose of talazoparib (n = 286) or PCT (n = 126). Adverse events (AEs) were evaluated, including timing, duration, and potential overlap of selected AEs. The relationship between talazoparib plasma exposure and grade ≥3 anemia was analyzed. Time-varying Cox proportional hazard models assessed the impact of dose reductions on PFS. Patient-reported outcomes (PROs) in patients with common AEs and health resource utilization (HRU) were assessed in both treatment arms.

RESULTS: The most common AEs with talazoparib were hematologic (195 [68.2%] patients) and typically occurred within the first 3-4 months of receiving talazoparib. Grade 3-4 anemia lasted approximately 7 days for both arms. Overlapping grade 3-4 hematologic AEs were infrequent with talazoparib. Higher talazoparib exposure was associated with grade ≥3 anemia. Permanent discontinuation of talazoparib due to hematologic AEs was low (<2%). A total of 150 (52.4%) patients receiving talazoparib had AEs associated with dose reduction. Hematologic toxicities were managed by supportive care medication (including transfusion) and dose modifications. Among patients with anemia or nausea and/or vomiting AEs, PROs favored talazoparib. After accounting for the treatment-emergent period, talazoparib was generally associated with a lower rate of hospitalization and supportive care medication use compared with chemotherapy.

CONCLUSION: Talazoparib was associated with superior efficacy, favorable PROs, and lower HRU rate versus chemotherapy in gBRCA-mutated ABC. Toxicities were manageable with talazoparib dose modification and supportive care.

IMPLICATIONS FOR PRACTICE: Talazoparib was generally well tolerated in patients with germline BRCA-mutated HER2-negative advanced breast cancer in the EMBRACA trial. Common toxicities with talazoparib were primarily hematologic and infrequently resulted in permanent drug discontinuation (<2% of patients discontinued talazoparib due to hematologic toxicity). Hematologic toxicities typically occurred during the first 3-4 months of treatment and were managed by dose modifications and supportive care measures. A significant efficacy benefit, improved patient-reported outcomes, lower rate of health resource utilization and a tolerable safety profile support incorporating talazoparib into routine management of germline BRCA-mutated locally advanced/metastatic breast cancer.

ESTUDIO GEICAM/2013-07 (EMBRACA) Y GEICAM/2014-04 (ABRAZO)

16. Population Pharmacokinetics of Talazoparib in Patients With Advanced Cancer.

Yu Y, Durairaj C, Shi H, Wang DD.

J Clin Pharmacol. 2020 Feb;60(2):218-228. doi: 10.1002/jcph.1520. Epub 2019 Sep 6.

Abstract:

Poly(ADP-ribose) polymerase (PARP) inhibitors have been developed to treat cancers associated with somatic BRCA mutations and germline genetic aberrations involved in the DNA damage response. The efficacy, tolerability, and pharmacokinetic/pharmacodynamic (PK/PD) profile of talazoparib, a potent small-molecule PARP inhibitor, was established in 4 clinical studies in cancer patients (2 phase 1 studies PRP-001 and PRP-002, the phase 2 ABRAZO trial, and the phase 3 EMBRACA trial). The current study aimed to describe the population PK of talazoparib and identify covariates that affect talazoparib PK in patients with advanced cancers using pooled data from these 4 studies. Talazoparib PK was well characterized by a 2-compartment model with first-order absorption and absorption lag time. Based on covariate analysis, no dose adjustment for talazoparib is required based on a patient's age, sex, baseline body weight, Asian race, the presence of mild renal or hepatic impairment, or use of acid-reducing agents. A reduced 0.75-mg daily dose is recommended for patients taking a potent P-glycoprotein inhibitor and those with moderate renal impairment. Insufficient data were available to establish dosing recommendations for patients with severe renal and moderate or severe hepatic impairment. The PK of a single 1-mg talazoparib capsule is comparable with 4 0.25-mg capsules. Talazoparib can be taken with or without food. These data provide support for dosing recommendations and labeling information for talazoparib.

ESTUDIO GEICAM/2012-08 (PALOMA-2)

17. **Biomarker Analyses of Response to Cyclin-Dependent Kinase 4/6 Inhibition and Endocrine Therapy in Women with Treatment-Naïve Metastatic Breast Cancer.**
Finn RS, Liu Y, Zhu Z, Martin M, Rugo HS, Diéras V, Im SA, Gelmon KA, Harbeck N, Lu DR, Gauthier E, Huang Bartlett C and Slamon DJ.

Clin Cancer Res. 2020 Jan 1;26(1):110-121. doi: 10.1158/1078-0432.CCR-19-0751. Epub 2019 Sep 16.

Abstract:
PURPOSE: Preclinical data identified the cyclin-dependent kinase 4/6 (CDK4/6) inhibitor palbociclib as synergistic with antiestrogens in inhibiting growth of hormone receptor-positive/human epidermal growth factor receptor 2-negative (HR+/HER2-) human breast cancer models. This observation was validated clinically in the randomized, placebo-controlled, phase III PALOMA-2 study.
EXPERIMENTAL DESIGN: To determine markers of sensitivity and resistance to palbociclib plus letrozole, we performed comprehensive biomarker analyses, investigating the correlation with progression-free survival (PFS), on baseline tumor tissues from PALOMA-2.
RESULTS: Despite a broad biomarker search, palbociclib plus letrozole demonstrated consistent PFS gains versus placebo plus letrozole, with no single biomarker or cassette of markers associated with lack of benefit from combination treatment. Palbociclib plus letrozole confers efficacy on both luminal A and B patients. Higher CDK4 levels were associated with endocrine resistance which was mitigated by the addition of palbociclib, whereas lower PD-1 levels were associated with greater palbociclib plus letrozole benefit. Tumors with more active growth factor signaling, as exemplified by increased expression of FGFR2 and ERBB3 mRNA, appeared to be associated with greater PFS gain from the addition of palbociclib.
CONCLUSIONS: These data underscore the importance of CDK4/6 signaling in HR+/HER2- breast cancer and suggest that the interplay between steroid hormone and peptide growth factor signaling could drive dependence on CDK4/6 signaling. See related commentary by Anurag et al., p. 3.
Comment in CDK4/6 Inhibitor Biomarker Research: Are We Barking Up the Wrong Tree? [Clin Cancer Res. 2020].
Comment on CDK4/6 Inhibitor Biomarker Research: Are We Barking Up the Wrong Tree? [Clin Cancer Res. 2020].

ESTUDIO GEICAM/2012-08 (PALOMA-2)

18. **Progression-free Survival Outcome Is Independent of Objective Response in Patients With Estrogen Receptor-positive, Human Epidermal Growth Factor Receptor 2-negative Advanced Breast Cancer Treated With Palbociclib Plus Letrozole Compared With Letrozole: Analysis From PALOMA-2.**
Rugo HS, Finn RS, Gelmon K, Joy AA, Harbeck N, Castrellon A, Mukai H, Walshe JM, Mori A, Gauthier E, Lu DR, Bananis E, Martin M, Diéras V.

Clin Breast Cancer. 2019 Sep 5. pii: S1526-8209(19)30668-8. doi: 10.1016/j.clbc.2019.08.009. [Epub ahead of print].

Abstract:
BACKGROUND: In PALOMA-2, palbociclib + letrozole significantly prolonged progression-free survival (PFS) versus placebo + letrozole in patients with estrogen receptor-positive/human epidermal growth factor receptor 2-negative (ER+/HER2-) advanced breast cancer (ABC). We investigated clinical outcomes of patients who achieved or did not achieve a confirmed objective response (OR) according to Response Evaluation Criteria in Solid Tumors (RECIST) version 1.1 (data cutoff: May 31, 2017).
PATIENTS AND METHODS: Postmenopausal patients untreated for ER+/HER2- ABC were randomized 2:1 to palbociclib + letrozole or placebo + letrozole. Median PFS, median duration of OR, baseline characteristics, and palbociclib exposure were compared in patients with or without OR by treatment arm.
RESULTS: In the intent-to-treat population, OR was achieved by 194 (44%) of 444 and 77 (35%) of 222 patients in the palbociclib and placebo arms, respectively (odds ratio, 1.5; 95% confidence interval [CI], 1.0-2.1; P = .0156). Regardless of treatment, more OR than non-OR patients had de novo metastatic disease (47%-50% and 28%-31%, respectively) and no prior endocrine therapy (55% and 35%-37%, respectively). Rates of palbociclib dose reduction owing to adverse events were similar regardless of OR (41% and 38%, respectively). Among the patients with OR during the study, approximately 50% achieved OR within the first 3 months regardless of treatment. The median PFS was significantly prolonged with palbociclib + letrozole versus placebo + letrozole in patients with measurable disease in both OR (37.2 months; 95% CI, 28.1 months to not estimable vs. 27.4 months; 95% CI, 22.2-31.1 months; hazard ratio, 0.66; 95% CI, 0.47-0.94; P = .009) and non-OR groups (10.9 months; 95% CI, 8.2-11.2 months vs. 5.6 months; 95% CI, 5.3-8.3 months; hazard ratio, 0.72; 95% CI, 0.54-0.97; P = .016).
CONCLUSIONS: Palbociclib + letrozole provided significant clinical benefit versus placebo + letrozole to patients with ER+/HER2- ABC regardless of achieving RECIST-defined OR. Pfizer; ClinicalTrials.gov: NCT01740427.

ESTUDIO GEICAM/2012-11 (KRISTINE)

19. Neoadjuvant Trastuzumab Emtansine and Pertuzumab in Human Epidermal Growth Factor Receptor 2-Positive Breast Cancer: Three-Year Outcomes From the Phase III KRISTINE Study.

Hurvitz SA, Martin M, Jung KH, Huang CS, Harbeck N, Valero V, Stroyakovskiy D, Wildiers H, Campone M, Boileau JF, Fasching PA, Afenjar K, Spera G, Lopez-Valverde V, Song C, Trask P, Boulet T, Sparano JA, Symmans WF, Thompson AM, Slamon D.

J Clin Oncol. 2019 Sep 1;37(25):2206-2216. doi: 10.1200/JCO.19.00882. Epub 2019 Jun 3.

Abstract:

PURPOSE: The KRISTINE study compared neoadjuvant trastuzumab emtansine plus pertuzumab (T-DM1+P) with docetaxel, carboplatin, trastuzumab plus P (TCH+P) for the treatment human epidermal growth factor receptor 2-positive stage II to III breast cancer. T-DM1+P led to a lower pathologic complete response rate (44.4% v 55.7%; P = .016), but fewer grade 3 or greater and serious adverse events (AEs). Here, we present 3-year outcomes from KRISTINE.

METHODS: Patients were randomly assigned to neoadjuvant T-DM1+P or TCH+P every 3 weeks for six cycles. Patients who received T-DM1+P continued adjuvant T-DM1+P, and patients who received TCH+P received adjuvant trastuzumab plus pertuzumab. Secondary end points included event-free survival (EFS), overall survival, patient-reported outcomes (measured from random assignment), and invasive disease-free survival (IDFS; measured from surgery).

RESULTS: Of patients, 444 were randomly assigned (T-DM1+P, n = 223; TCH+P, n = 221). Median follow-up was 37 months. Risk of an EFS event was higher with TDM-1+P (hazard ratio [HR], 2.61 [95% CI, 1.36 to 4.98]) with more locoregional progression events before surgery (15 [6.7%] v 0). Risk of an IDFS event after surgery was similar between arms (HR, 1.11 [95% CI, 0.52 to 2.40]). Pathologic complete response was associated with a reduced risk of an IDFS event (HR, 0.24 [95% CI, 0.09 to 0.60]) regardless of treatment arm. Overall, grade 3 or greater AEs (31.8% v 67.7%) were less common with T-DM1+P. During adjuvant treatment, grade 3 or greater AEs (24.5% v 9.9%) and AEs leading to treatment discontinuation (18.4% v 3.8%) were more common with T-DM1+P. Patient-reported outcomes favored T-DM1+P during neoadjuvant treatment and were similar to trastuzumab plus pertuzumab during adjuvant treatment.

CONCLUSION: Compared with TCH+P, T-DM1+P resulted in a higher risk of an EFS event owing to locoregional progression events before surgery, a similar risk of an IDFS event, fewer grade 3 or greater AEs during neoadjuvant treatment, and more AEs leading to treatment discontinuation during adjuvant treatment.

ESTUDIO GEICAM/2010-11 (APHINITY)

20. Incidence and Management of Diarrhea With Adjuvant Pertuzumab and Trastuzumab in Patients With Human Epidermal Growth Factor Receptor 2-Positive Breast Cancer.

Bines J, Procter M, Restuccia E, Viale G, Zardavas D, Suter T, Arahmani A, Van Dooren V, Baselga J, Clark E, Eng-Wong J, Gelber RD, Piccart M, Mobus V, de Azambuja E; APHINITY Steering Committee and Investigators.

Clin Breast Cancer. 2019 Sep 5. pii: S1526-8209(19)30656-1. doi: 10.1016/j.clbc.2019.06.016. [Epub ahead of print].

Abstract:

BACKGROUND: The APHINITY (BIG 4-11) study showed that pertuzumab significantly improved the rates of invasive disease-free survival among patients with human epidermal growth factor receptor 2 (HER2)-positive, operable breast cancer when added to adjuvant trastuzumab and chemotherapy. Because diarrhea was a common adverse event that could compromise treatment administration, we evaluated the incidence and management of diarrhea in the APHINITY study.

PATIENTS AND METHODS: The APHINITY trial is a prospective, randomized, multicenter, multinational, double-blind, placebo-controlled trial. The eligible patients were randomly assigned to receive standard adjuvant chemotherapy and 1 year of trastuzumab combined with pertuzumab or placebo. The diarrhea incidence, severity (National Cancer Institute common terminology criteria for adverse events, version 4.0), onset, and management were analyzed.

RESULTS: A total of 4805 patients were randomized. Diarrhea of any grade was the most common adverse event and occurred in 71% of patients in the pertuzumab arm versus 45% in the placebo arm. Diarrhea grade 3 to 4 was observed in 10% and 4% in the pertuzumab and placebo arms, respectively. The greatest incidence of diarrhea was reported during the concomitant administration of HER2-targeted therapy and taxane (61% vs. 34% of patients experienced an event with pertuzumab vs. placebo, respectively). A marked decrease was observed on chemotherapy cessation. Antidiarrheal agents were commonly used, and diarrhea rarely caused treatment dose modifications or discontinuation.

CONCLUSION: Diarrhea was a common adverse event in the APHINITY study. Most episodes were low grade and were generally manageable with common antidiarrheal agents. The incidence of diarrhea was greater with the combination of a taxane and HER2-targeted treatment and decreased once chemotherapy was stopped.

ESTUDIO GEICAM/2010-11 (APHINITY)

21. **Pharmacokinetic and exploratory exposure-response analysis of pertuzumab in patients with operable HER2-positive early breast cancer in the APHINITY study.**
Kirschbrown WP, Kågedal M, Wang B, Lindbom L, Knott A, Mack R, Monemi S, Nijem I, Girish S, Freeman C, Fumagalli D, McConnell R, Jerusalem G, Twelves C, Baselga J, von Minckwitz G, Bines J, Garg A.

Cancer Chemother Pharmacol. 2019 Jun;83(6):1147-1158. doi: 10.1007/s00280-019-03826-1. Epub 2019 Apr 11.

Abstract:

PURPOSE: To characterize the pharmacokinetics (PK) of, and perform an exploratory exposure-response (E-R) analysis for, pertuzumab in patients with HER2-positive early breast cancer (EBC) within the APHINITY study (NCT01358877, BIG 4-11/BO25126/TOC4939G).

METHODS: A previously developed pertuzumab two-compartment linear population pharmacokinetic (popPK) model was subjected to external validation to examine appropriateness for describing pertuzumab concentrations from the APHINITY study. Pharmacokinetic drug-drug interactions (DDIs) between pertuzumab, trastuzumab, and chemotherapy were assessed by comparing observed serum or plasma Cmax, Cmin, and AUClast geometric mean ratios with 90% CIs. Predictions of pertuzumab Cmax,ss, Cmin,ss, and AUCss were derived from individual parameter estimates and used in an exploratory E-R analysis.

RESULTS: Using data from 72 patients, based on goodness-of-fit, the popPK model was deemed appropriate for predictions of individual exposures for subsequent comparisons to historical data, assessment of DDIs, and E-R analyses. No evidence of DDIs for pertuzumab on trastuzumab, trastuzumab on pertuzumab, or pertuzumab on chemotherapy PK was observed. Analyses of differences in exposure between patients with and without invasive disease-free survival events did not indicate improved efficacy with increased exposure. Overall Grade ≥ 3 diarrhea prevalence was higher with pertuzumab versus placebo, but was not greater with increasing pertuzumab exposure. No apparent E-R relationship was suggested with respect to other grade ≥ 3 AEs.

CONCLUSION: Overall, the limited available data from this exploratory study suggest that no dose adjustments are needed for pertuzumab when administered in combination with trastuzumab and an EBC chemotherapy regimen.