

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. symptomatic patients (lump, swelling, pain...). Epidemiological, clinical, pathologic and treatment information was collected.

Results: We analyzed 590 young patients (\leq 45 years old) with a new diagnosis of in situ or infiltrating breast cancer. Results are summarized in the table below.

Table: 174P						
	Asymptomatic	Symptomatic	univariate analysis, p			
N (%)	162 (27%)	428 (73%)				
Median age/range	41,9 (26-45)	41,2 (28-45)				
Stage 0 (in situ)	20%	5%	p=0.001			
Stage I	46%	30%	p=0.001			
Stage II	25%	40%	p=0.001			
Stage III	6%	20%	p=0.001			
Stage IV	3%	5%	p=0.01			
Family background	40%	32%	p=0.091			
BRCA 1/2	8%	5%	p=0.14			
Lymph node positive	24%	45%	p=0.0001			
Mastectomy/Breast conservative	64%/36%	72%/28%	p=0.1			
Neoadyuvant CT	13%	30%	p=0.0001			
CT neo or adyuvant	54%	79%	p=0.0001			
Radiotherapy	31%	54%	p=0.0001			
Relapse	11%	17%	p=0.02			

Conclusions: Most women under 45 years are diagnosed with breast cancer due to symptoms, since they are excluded from screening programs. No differences were found in family background between the two groups. Women who are screened are diagnosed with a statistically significantly lower stage, less lymph node involvement, receive less chemotherapy, less radiotherapy, and have fewer relapses. Screening programs in young patients could avoid some of the treatments and related late side effects.

Legal entity responsible for the study: The authors.

Funding: Has not received any funding.

Disclosure: All authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2021.03.188

175P Tumour biology in young breast cancer patients (YBCP): A different disease?

<u>B. Cantos Sanchez De Ibarguen</u>¹, M. Mendez Garcia¹, M. Blanco Clemente¹, B. Nunez Garcia¹, C. Corbacho², C. Gonzalez Lois², R. Aguado¹, Y. Garitaonaindia¹, M. Provencio Pulla¹, J.C. Sánchez¹

¹Oncology Department, Hospital Universitario Puerta de Hierro - (INSALUD), Majadahonda, Spain; ²Pathology Department, Hospital Universitario Puerta de Hierro -(INSALUD), Majadahonda, Spain

Background: Breast cancer in Young patients has been related to a more aggressive tumor biology in some studies, due to a more frequent triple negative disease, grade III or vascular/lymphatic invasion. Early age at the time of breast cancer diagnosis has emerged worldwide as an independent factor associated with an increased risk of relapse and death regardless of the treatment administered with some controversies in the cut-off age (40 vs 45).

Methods: We have performed a retrospective analysis of YBCP (\leq 45 years) treated at the Oncology Department in HUPHM in Madrid-Spain, diagnosed with infiltrating breast cancer between 2009-2019. All data from the pathology and immunohisto-chemical report were collected and analyzed. We have examined the difference between subtypes and pathological characteristics according to age (<40 and \geq 40-45).

Results: From a total of 600 YBCP analyzed, we identified 559 with infiltrating breast carcinoma of which we have a pathological report. The differences according to age are shown below:

Conclusions: Most of the tumours were invasive ductal carcinoma, just 20% were grade I, only 12% triple negative tumors, 64% of the tumors had a high ki-67, 83% were hormone receptor positive (76% of them positive for both receptors). Lymphovascular and perineural invasion was present in 35% and 13% respectively. No significant differences were found according to age, with a similar distribution in the different subtypes and prognostic features.

Legal entity responsible for the study: The authors.

Funding: Has not received any funding.

Disclosure: All authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2021.03.189



Breast cancer treatment during the first wave of the COVID-19 pandemic at a UK centre

<u>K. Balachandran^{1,*}</u>, J. Williams^{1,*}, D. Bell¹, A. Brown¹, S. Mahmoud¹, P. Hurhangee²,
R. Ramakrishnan², S. Cleator¹, R.C. Coombes³, O. Hatcher¹, F. Rehman¹,
J. Stebbing³, L. Kenny³

¹Oncology, Charing Cross Hospital - Imperial College Healthcare NHS Trust, London, UK; ²Histopathology, Charing Cross Hospital - Imperial College Healthcare NHS Trust, London, UK; ³Department of Surgery and Cancer, Imperial College London - Hammersmith Hospital, London, UK

Background: This study aimed to assess the impact of the first wave of the COVID-19 pandemic on treatment delivery in patients undergoing systemic anti-cancer therapy (SACT) for breast cancer at a major London Oncology centre within an acute general hospital.

Methods: Patients receiving outpatient SACT for breast cancer over a two-month period from 23^{rd} March - 17^{th} May 2020 were included and compared to an equivalent period in 2019.

Results: The number of referrals for breast cancer diagnosis was reduced by 38%. This was primarily a result of suspended screening services and inevitably had an impact on the number of patients starting their first treatment, which was reduced by 34%. Treatment was most affected for patients receiving neoadjuvant chemotherapy, 85% (28/33) of whom were impacted. Eight-six percent (24/28) of these had surgery expedited. The treatment of 74% of adjuvant (23/31) and 57% (12/21) of palliative patients receiving chemotherapy was modified, deferred or stopped. Modifications included switching to oral or less immunosuppressive therapies, delaying anthracyclines until completion of taxanes and increased use of G-CSF. Patient preference, comorbidities and benefit of therapy were used to guide treatment. Compared to 2019, SACT given in hospital was reduced by 39%, mainly due to a reduction in intravenous bisphosphonate administration. Recovery was evident during the 8 week period, with treatment numbers returning to near normal towards the end. Widespread COVID-19 testing was not available at this time but 1% (3/312) of patients had parenteral treatment delayed due to COVID-19 symptoms (either in themselves or a household contact) and 2 patients tested positive for COVID-19 during the study period. One of these confirmed cases died from COVID-19 infection.

Conclusions: This study demonstrates that the first wave of COVID-19 had a significant effect on breast cancer diagnosis and treatment delivery. Future impact on survival for these patients is uncertain. Whilst recovery is now evident, better efforts must be made to ensure cancer services and patients are prioritised in future.

*Dr. Balachandran and Dr. William equally contributed to this study.

Legal entity responsible for the study: The authors.

Funding: Has not received any funding.

Disclosure: All authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2021.03.190

Table: 175P					
	<40	≥40-45	Global population	p value	
Histology Ductal Lobulillar Other	89% 5% 6%	82% 11% 7%	84% 9% 7%	p = 0,1	
Grade I II III Unknown	18% 45% 32% 5%	21% 47% 28% 4%	20% 46% 30% 4%	p = 0,6	
Multicentricity	26%	33%	31%	p = 0,09	
Histologic Subtypes: Triple Negative HR+ HER2- HR+ HER2+ HR- HER2+	12% 70% 13% 5%	12% 71% 12% 5%	12% 71% 12% 5%	p = 0,9	
Ki-67 $<$ 14 \geq 15	32% 68%	38% 62%	36% 64%	p = 0,18	
Hormone Receptor ER-/PR- ER+/PR- ER-/PR+ ER+/PR+	17% 5% 2% 76%	16% 6% 2% 76%	16% 6% 2% 76%	p = 0,9	
Lymphovascular invasion	35%	35%	35%	p = 0,9	
Perineural invasion	14%	13%	13%	p = 0,8	