invasive breast cancer. The sequences of 85 patients who underwent a radical treatment (mastectomy) were compared to those of 84 patients who benefited from conservative surgery. We estimated the tumor volume (TV) and breast volume (BV) on enhanced MRI and then we compared the tumor volume to breast volume ratio (TV/BV) in both groups.

Results We reviewed retrospectively the preoperative MRI (3 Tesla) of 169 patients operated at Hôtel-Dieu de France for invasive breast cancer. The sequences of 85 patients who underwent a radical treatment (mastectomy) were compared to those of 84 patients who benefited from conservative surgery. We estimated the tumor volume (TV) and breast volume (BV) on enhanced MRI and then we compared the tumor volume to breast volume ratio (TV/BV) in both groups.

Conclusions Our data suggest that preoperative MRI can aid the surgical treatment decision in patients with invasive breast cancer by assessing the tumor to breast volume ratio as well as by providing a full mapping of multifocal and multicentric lesions in the breast tissue.

IGCS19-0697

137 THE ALTERATION OF LIPIDS AND STEROID HORMONES IN BREAST TUMORS

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Objectives Breast Cancer (BC) is the mostly spread malignant disease among women worldwide. Lipids play important roles in several biochemical pathways on molecular and cellular level, such as synthesis of steroid hormones, which contributes to the development of BC. Therefore, we investigated levels following plasma lipids: cholesterol (TC), high-density lipoprotein (HDL), low-density lipoprotein (LDL), very low-density lipoprotein (VLDL) and triglycerides (TG), and sex-steroid hormones: progesterone (P), estradiol (E2) and testosterone (T) in pre-menopausal (20–45 years) women with benign or malignant breast tumors.

Methods We studied the lipid profile among the pre-menopausal (20–45 years) women with breast tumors. Venous blood samples were tested for investigation investigation. $P < 0.05$ was regarded as statistically significant.

Results According to our investigation, higher CHOL level were associated with benign ($P=0.0002$), and malignant ($P=0.0001$) tumors compared with control group. The level of HDL decreases in benign ($P=0.0002$) and malignant ($P<0.001$) tumor groups compared with the control group. LDL level was elevated in both groups, as well, in benign and malignant tumors respectively ($P=0.002$, $P<0.001$). VLDL level was also decreased in both tumor subtypes respectively ($P=0.0003$; $P=0.0007$) compare to control group. Similarly, TG level was increased in benign ($P=0.0025$), and in malignant breast tumors ($P=0.002$) compared with controls. E2 and T levels were elevated in tumors in tumor's group ($P<0.05$).

Conclusions Our investigation has shown the association between high levels of CHOL, LDL, TG, E2 and T with breast tumors. Lipid profile and steroid hormones may be used as relatively reliable prognostic marker for early breast cancer prevention and diagnostics.

IGCS19-0722

138 SELECTED TUMOR MARKERS AND SEX-STEROID HORMONES IN BREAST TUMORS

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Objectives Breast cancer (BC) is one of the tumors with the highest incidence among women worldwide. We have been investigating potential association between CA153, CA125, and CEA tumor makers, and sex-steroid hormones estrogen (E2), progesterone (P), and testosterone (T).

Methods For the assessment of hormonal status, we used the blood samples of women with benign (fibroadenoma) and malignant tumors of breast gland within patients aged between 20 and 45 years. Also, control group of women were age-matched. Enzyme-linked immunosorbent assay (ELISA) was used for the quantitative determination of hormones, with appropriate ELISA kits. $P < 0.05$ was regarded as statistically significant.

Results The investigations have shown the levels of CA153, CA125 and CEA tumors markers were high within patients with benign and malignant breast tumors. According to our studies levels of steroid hormones E2 and T were elevated in BC tumors (benign - $P<0.0001$ and $P=0.003$; malignant - $P=0.0003$ and $P=0.0424$, respectively).

Conclusions In conclusion, the present study suggests that higher levels of CA 15–3, CA 125, CEA tumor markers and sex steroid hormones (E2, T) may be useful as a reliable prognostic marker for early breast cancer prevention and diagnostics. The association between mentioned tumor markers and sex-steroid hormones provides a new perspective a identify new combinative markers for breast cancer.

IGCS19-0470

139 METASTASIS DESCRIPTION IN 227 PATIENTS WITH BREAST CANCER IN COLOMBIA

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Objectives Background: Describing individuals with advanced breast cancer allows identifying some factors that influence the course of care. The objective of this study is to describe

sociodemographic, clinical and pathological characteristics of women in stage IV breast cancer in two reference oncology centres in Colombia.

Methods Data from 2010 - 2017 registres was analysed descriptively. Including central tendency, univariate, bivariate measures and comparisons of proportions with Chi-square ($p < 0,1$) were assessed.

Results Results: We included 227 patients with metastatic breast cancer. 88%(165) were classified on invasive ductal cancer, the mean Ki67 was 30%, and 41% (68) were luminal A subtype. The average age at diagnosis of cancer and metastasis was 53.7 and 55.9 years respectively. 45% (84) of the patients had debuted with distant cancer in the first consultation with the oncologist. The frequency order of metastasis sites was: bone (43%), lung-pleura (20.4%) and liver (10.7%). On average patients presented 2.0 different metastasis at the end of the observation. Non-ductal variants might be associated with metastasis at the first consultation, and high histological grade could be associated with death during follow-up ($p 0.05$).

Conclusions This is the first description of metastatic breast cancer behaviour in Colombia. The ductal variant, luminal A, high grade, high proliferative index and bone metastasis were the most common characteristics found in women included in this study.

IGCS19-0116

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ONE STEP IMPLANT RECONSTRUCTION IN NIPPLE SPARING MASTECTOMY: PATIENT SELECTION BY PREOPERATIVE DIGITAL MAMMOGRAM

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Objectives

Background Digital mammography clearly distinguishes gland tissue density from the overlying nonglandular breast tissue coverage, which corresponds to the existing tissue between the skin and the superficial layer of the fascia superficialis surrounding the gland (i.e., dermis and subcutaneous fat). Preoperative digital imaging can determine the thickness of this breast tissue coverage, thus facilitating planning and reducing the rate of necrotic complications after direct to implant (DTI) reconstruction in nipple sparing mastectomy (NSM).

Methods Thirty NSMs in 22 patients with type 3 tissue coverage (subcutaneous tissue thickness of 2 cm or more) were selected for DTI reconstruction after NSM to evaluate immediate skin flap/nipple areola complex ischemic complications and patient satisfaction.

Results Results: We experienced no wound healing problems or ischemic complications immediately after surgery in our population. Only 1 seroma was observed as a shortterm complication. Quality of life and patients' satisfaction level were optimal at 3 and 6 months follow-up, respectively. The aesthetic results have been evaluated as good/excellent in all cases.

Conclusions DTI immediate reconstruction with silicone implants following NSM appears to be a safe option in selected cases with enough tissue coverage, also providing a high level of patient satisfaction. The possibility of selecting cases for this procedure according to the preoperative digital mammogram showing more than 2 cm of superficial tissues thickness may help reducing the risk of immediate ischemic complications.

Cervical Cancer

IGCS19-0532

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HPV VACCINATION COVERAGE AT TWO NORTHEASTERN CITIES IN PERNAMBUCO

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Objectives Describe the vaccination coverage among girls between 2014–2018 at two cities in Pernambuco state.

Methods Data from DATASUS (informatic department of Sistema Único de Saúde) were analyzed. Although we had studied data from all cities in Pernambuco, only Recife and Abreu e Limavaccination coverage were reported here. Data from 2016 was unavailable at DATASUS.

Results Vaccination coverage was high in 2014 at Recife (204%), when the program was started and performed at schools, what may justify more than 100% of coverage since many children from metropolitan area study at this city. At Abreu e Lima, there was also a high coverage (94.7%), above government goals. Overall, coverage of second dose was lower than the first dose. Thereafter, we watch an incisive breakdown of the HPV vaccination coverage at Recife. Currently, Brazilian government offers 2 doses of tetravalent HPV vaccine for 11–14 years old girls and although there was a recommendation of schoolers' vaccination, it was not systematically made. On the other hand, those cities where schoolers were systematically vaccinated, like Abreu e Lima, we observe high coverage, especially in 2018.

Conclusions Even though cervical cancer is a preventable disease, it is still one of the most common cause of cancer in Brazil. HPV vaccination is one strategy adopted against this reality, but geographic and cultural barriers are identified. Currently, HPV vaccination coverage at Recife is negligible and reflects failure of the actual strategy. Multiple efforts, including schoolers vaccination, may increase rates of vaccination and change this landscape.