

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.

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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.

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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.

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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