Pregnancy Associated Breast Cancer

Essay

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List of Abbreviations

5-HT	5-hydroxytryptamine
AC	Doxorubicin / Cyclophosphamide
ALND	Axillary lymph node dissection
AMH	Anti-Müllerian hormone
ART	Assisted reproductive technologies
ASCO	American Society of Clinical Oncology
ASRM	American Society of Reproductive Medicine
AUC	Area under the curve
BCS	Breast conservative surgery
BMI	Body mass index
CDC	Centre For Disease Control
CMF	Cyclophosphamide/Methotrexate/Flurouracil
CNS	Central Nervous System
CT	Computed tomography
DCIS	Ductal Carcinoma Insitu
DFS	Disease free survival
DNA	Deoxy – ribonucleic acid
ЕСНО	Echocardiogram
EGF	Epidermal Growth Factor
ER	Estrogen Receptor

🕏 List of Abbreviations

FAC	Flurouracil /Adriamycin/ Cyclophosphamide
FEC	Flurouracil /Epirubicin/ Cyclophosphamide
FNA	Fine Needle Aspiration
FP	Fertility preservation
FSH	Follicle Stimulating Hormone
G-CSF	Granulocyte Colony Stimulating Factor
GnRH	Gonadotrophin Releasing Hormone
hCG	human Chorionic Gonadotrophin
HER2	Her-2neu receptor
HLA	Human leucocyte antigen
IDC	Invasive duct carcinoma
IHC	Immunohistochemistry
IQ	Intelligent Quotient
IUD	Intra uterine device
IUGR	Intra Uterine Growth Retardation
IVF	In vitro Fertilization
KDa	Kilodalton
LCIS	Lobular Carcinoma Insitu
LH	Lutinizing Hormone
LHRH	Lutinizing Hormone Releasing Hormone
MRI	Magnetic resonance imaging
MRM	Modified radical mastectomy

🕏 List of Abbreviations

MTX	Methotrexate
NCCN	National Comprehensive Cancer Network
NCI	National cancer inisitute
NSAID	Non steroidal anti-inflammatory drugs
OS	Overall survival
PABC	Pregnancy associated breast cancer
PDGF	Platelete Drived Growth Factor
PET	Positron Emission Tomography
PR	Progesteron Receptor
RR	Relative Risk
PTSD	Post-traumatic stress disorder
SIDS	sudden infant death syndrome
SLNB	Sentinel Lymph Node Biopsy
TSH	Thyroid Stimulating Hormormone
US	Ultrasonography

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Introduction

Breast cancer is the most common cancer in women in developed western countries and is becoming even more significant in many developing countries. Although incidence rates are increasing, mortality rates are stable, representing an improved survival rate. This improvement can be attributed to effective means of early detection, mainly mammography, as well as to significant improvement in treatment options (*Althuis et al.*,2005; *Yang et al.*,2005).

The 5-year relative survival rate is lower among women diagnosed with breast cancer before age 40 (84%) compared to women diagnosed at 40 years of age or older (90%). This may be due to tumors diagnosed at younger ages being more aggressive and/or less responsive to treatment (*Anders et al.*, 2008).

Estrogens are causally linked to the development of breast cancer, Age at menarche, age at first full-term pregnancy, family history, exposure to female reproductive hormones (both endogenous and exogenous), dietary factors, parity, breast feeding, are some of the recognized factors that influence breast cancer incidence in young women (*Russo & Russo*, 2006; *Devita*, 2008).

Breast cancer occurring during pregnancy or within the first year during pregnancy is considered to be pregnancy associated breast cancer (PABC) (*Navrozoglou et al.*, 2008) Approximately 25% of all breast cancers occur in women of childbearing age and approximately 3% of all breast cancers occur during pregnancy (Garcı'a-Manero et al 2009).

Cancer during pregnancy puts the mother in a difficult situation. A new life is growing inside her and at the same time her own life is threatened. Also, for the medical team it is a complex setting, because two individuals are involved: the mother and her unborn child. Cancer management has to be based on the needs of the mother while always bearing the child in mind (*Dean*, 2007).

The clinical diagnosis of breast cancer is difficult during pregnancy or breastfeeding firstly because of the physiological changes occurring in the breast and also because it is rarely considered by the physician or even by the patient herself (*Eedarapalli*, 2006).

Breast imaging during pregnancy requires particular expertise since the physiological changes, including increased breast vascularity and density, render imaging modalities more difficult to interpret. Breast ultrasound has a high sensitivity and specificity for the diagnosis of PABC (*Navrozoglou*, 2008). It is the standard method for the evaluation of a palpable breast mass