

## **Pregnancy associated breast cancer (PABC)**

The treatment guidelines of PABC are the same as that for non-pregnant patients with breast cancer: local control of the disease and prevention of systemic metastases. However during pregnancy, certain treatment modalities need to be modified because of the potential for adverse effects on the fetus.

### **Key considerations**

1. It is important the PABC should be managed by a breast specialist team in a multidisciplinary hospital. In joint consultation with an obstetrician, a management plan should be made which is best for the mother and the child. The decision to continue pregnancy should be based on careful discussion of cancer prognosis, treatment, future fertility with the woman and her partner and multi-disciplinary team.
2. Ultrasonography is the imaging modality of choice. If mass is suspicious on USG, bilateral mammography with appropriate shielding is recommended.
3. Mammogram should be done only if it necessary for making treatment decision and a low dose calibrated modern mammography machine should be used.
4. Surgery can be safely performed at any time during pregnancy, but second trimester is preferred. Lumpectomy and mastectomy are both reasonable surgical approaches.
5. Chemotherapy should not be administered in the first trimester of pregnancy; anthracycline-based chemotherapy can be safely initiated in the second and third trimesters of pregnancy.
6. Chemotherapy should be stopped approximately 3–4 wk before delivery to avoid hematologic nadir during delivery that may result in infectious or bleeding complications.
7. Dosing of chemotherapy in pregnant patient should be similar to that in non-pregnant patient (i.e., based on actual body surface area).

### **Contraindications**

1. Gadolinium-based contrast for MRI is not recommended.

2. Isosulfan blue dye is contraindicated for lymphoscintigraphy as dual tracer for sentinel lymph node biopsy.
3. Chemotherapy is contraindicated in first trimester of pregnancy.
4. Breast-feeding is contraindicated while patient is on chemotherapy.
5. Endocrine treatment is contraindicated during pregnancy and lactation.
6. Anti-HER2 therapy (Trastuzumab/ Lapatinib) is contraindicated in pregnancy
7. Radiation therapy is contraindicated during pregnancy