METROPOLIS
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IMMUNOHISTOCHEMISTRY PANEL
(PREDICTIVE & PROGNOSTIC MARKER ASSESSMENT)

Case Summary

CASE NO. :**23MLI17315**

Clinical Notes	Ca Breast.
Original H and E	Right MRM - Histomorphology is consistent with Invasive Ductal Carcinoma - Breast, Grade III.
Gross Examination	Received 11 paraffin blocks labelled as HP-4279/23 A to J

RESULT :

Estrogen Receptor (ER)

Interpretation	Negative
Proportion	-
Intensity	-
Quick Score	-

Progesterone Receptor (PgR)

Interpretation	Negative
Proportion	-
Intensity	-
Quick Score	-

PROPORTION & INTENSITY SCORING - ALLRED SCORE

Proportion	Intensity
0 = No nuclear staining	0 = No staining
1 = <1% nuclei staining	1 = weak staining
2 = 1-10 % nuclei staining	2 = moderate staining
3 = 11-33 % nuclei staining	3 = strong staining
4 = 34-66% nuclei staining	
5 = 67-100 % nuclei staining	

MC-2139

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C-erbB-2/ Her 2 neu		
	Score value	0
	Score result	Negative

RESULT INTERPRETATION OF Her 2/neu. (ASCO/CAP 2018).

Score	C-erbB-2 (HER-2 protein) overexpression assessment	Staining pattern
0	Negative	No observed staining or incomplete, faint / barely perceptible membrane staining in <= 10% of invasive tumour cells.
1+	Negative	Incomplete, faint / barely perceptible membrane staining in > 10% of invasive tumour cells.
2+	Equivocal	Weak to moderate complete membrane staining observed in >10% tumor cells.
3+	Positive	Complete / intense circumferential membrane staining in > 10% of invasive tumour cells.

Processing : Manual / Automated (Roche Ventana Benchmark XT 715030, Roche Ventana Benchmark XT 716016, Intellipath)

CAP Recommendation :

- Testing ER, PgR and Her2/neu status on all newly diagnosed invasive breast cancers (primary site and/or metastatic site), and whenever appropriate, repeat testing in patients with a known breast cancer diagnosis who now present with a local or distant recurrence.
- Fixation time: Ideally should be 6-72 hours for ER/PgR and Her2/neu.
- Cold Ischemic time: It is the time from tissue removal to initiation of fixation and should be less than or equal to one hour.

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Note:

ER / PR

- Considering an ER and PgR test performed by an IHC assay as positive if at least one percent of the tumor in the sample tests positive, which helps predict whether a patient is likely to benefit with endocrine treatment.
- Patients whose breast cancers have very low levels of staining(Quick score 2) may still benefit from adjuvant endocrine therapy. It is reasonable for oncologists to discuss the pros and cons of endocrine therapy with patients whose tumors contain low levels of ER by IHC (one percent to ten percent weakly positive cells) and to make an informed decision based on available information.
- Patients with tumours scoring less than 2 are regarded as ER / PgR negative and have a negligible chance of response to endocrine therapy.

C-erbB-2

- For equivocal cases (2+) Fluorescent in-situ hybridization (FISH) analysis for Her-2 gene amplification can be used as a secondary test.
- Prolonged cold ischemic and fixation times may lead to a false negative Her2/neu result.
- If the cold ischemic and fixation times are not known, negative Her2/neu results should be interpreted with caution.
- If the initial HER2 test result in a core needle biopsy specimen of a primary breast cancer is negative, a new HER2 test may be ordered on the excision specimen.

References :

- Fitzgibbons PL, Murphy DA, Hammond ME, et al. Recommendations for validating estrogen and progesterone receptor immunohistochemistry assays. Arch Pathol Lab Med. 2010;134;930-935
- Wolff AC, Hammond EH, Allison KH, et al. Human Epidermal Growth Factor Receptor 2 Testing in Breast Cancer: American Society of Clinical Oncology/College of American Pathologists Clinical Practice Guideline Focused Update. Arch Pathol Lab Med. 2018;142(11):1364-1382.

Quality Assurance:

- The external (positive and negative) and internal control (wherever applicable) show appropriate reactivity.
- Detection system: MACH-2 Universal HRP Polymer Detection / Ultraview Dab detection Kit.
- Clone: ER - SP1; Company: Thermoscientific/Lab Vision.
- Clone: PgR – PgR636; Company: Dako.
- Clone: C-erbB-2 – SP3; Company: Thermoscientific/Lab Vision.

Dispatch Summary:

1. Blocks that are submitted are enclosed with the report.
2. Stained slide is archived.
3. Case images are available on request.

-- End of Report --

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