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INTRODUCTION

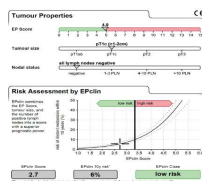
- Decision on adjuvant systemic therapy in hormone positive early breast carcinoma is the only grey area in breast carcinoma management.
- Genomic tests have emerged as the tool to guide treatment in early breast carcinoma(1,2).
- Artificial intelligence in the form of IBM Watson for Oncology has recently gained it acceptance (3) in oncology field

AIM (S & OBJECTIVES

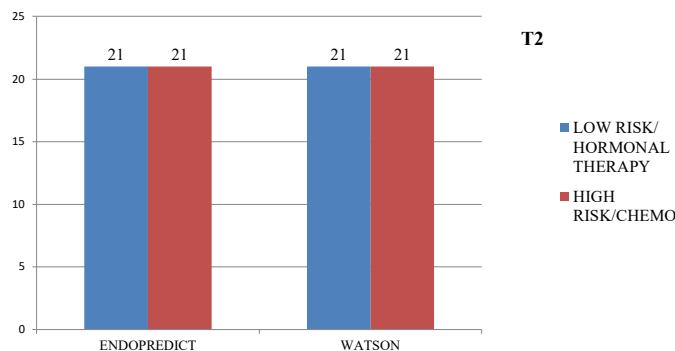
- To investigate the concordance between the results of genomic test, artificial intelligence and implications of the same in clinical practice in Indian setup..

METHODS AND MATERIALS

- Study Design: Prospective study
- Duration : June 2017 to June 2019
- No Of Patients: 42
- T1: Opinion from the tumor board was taken after reviewing the final pathology report & patient clinical characteristics, EndoPredict assay was done for eligible cases, all details of the patients were entered in Watson for Oncology and the recommendations were analysed
- T2: Concordance b/w EP test and Watson recommendation was compared after providing the risk prediction score to Watson for Oncology

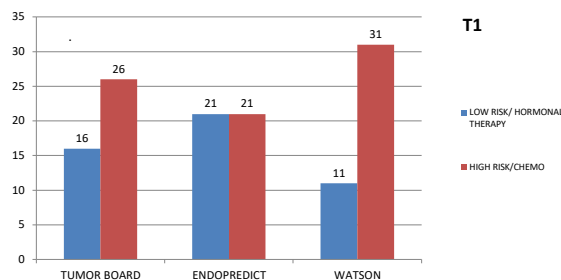


		ENDOPREDICT TEST		WATSON	
		LOW RISK (No of pts)	HIGH RISK (No of pts)	HORMONAL THERAPY	CHEMOTHERAPY
Menopausal status	Pre	5	7	3	9
	Post	17	13	8	22
HPE TYPE	IDC	16	15	9	22
	ILC	4	3	2	5
LN	Positive	1	41	0	42
	LOW	12	4	5	11
Ki 67	HIGH	10	16	6	20



RESULTS

CHARACTERISTICS	
Total no of patients	42
Age	58.3 years
Postmenopausal status	30 (71.4%)
Breast conservation surgery	20 (47.6%)
IDC	35 (83.3%)
pT1	19 (45.2%)
pT2	22(52.3%)
pT3	1(2.3%)
Lymphnode positivity	15 (35.7%)



DISCUSSION

- Extremes of age, premenopausal status, intermediate grade & high Ki 67% values were the factors associated with initial discordance between the tumor board & the gene signature.
- After entering the recurrence risk score , the concordance between Molecular gene signature & artificial intelligence recommendation were 100%.
- Concordance between the decision of tumor board, the genomics & Watson was 60% initially (blinded).
- After reviewing the recurrence risk score report & the recommendation by Watson for oncology, the decision on adjuvant therapy was changed for 3 patients: hormonal therapy instead of chemotherapy.

CONCLUSIONS

- Tumor board decision can be more scientific & evidence based with the help of genomics & a learners colleague in the form of Watson for Oncology
- Even though the clinical experience is the important determinant of adjuvant therapy, genomic test with artificial intelligence ,which includes the scientific evidence, will guide the decision.
- Long term follow up is needed for the validation in our clinical setting.

REFERENCES

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