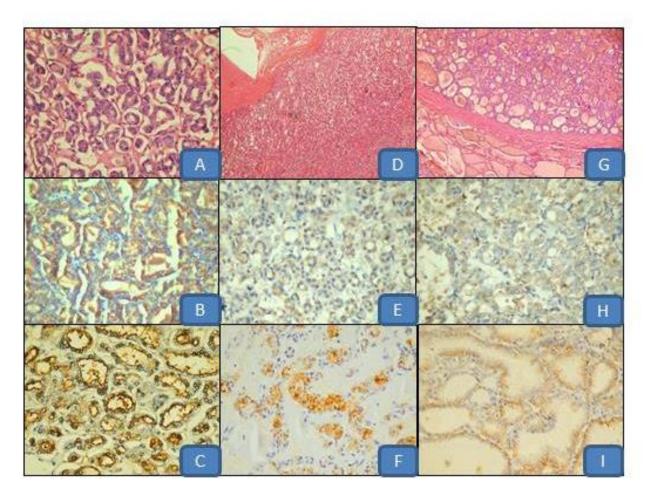
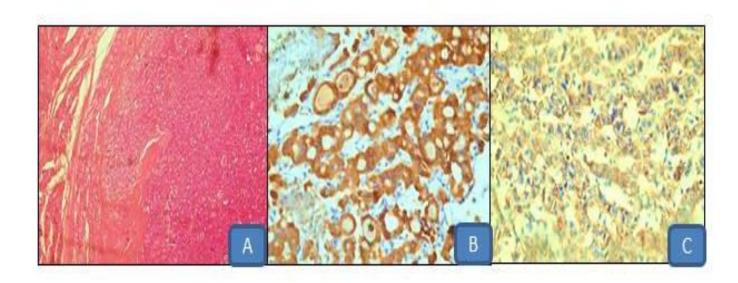


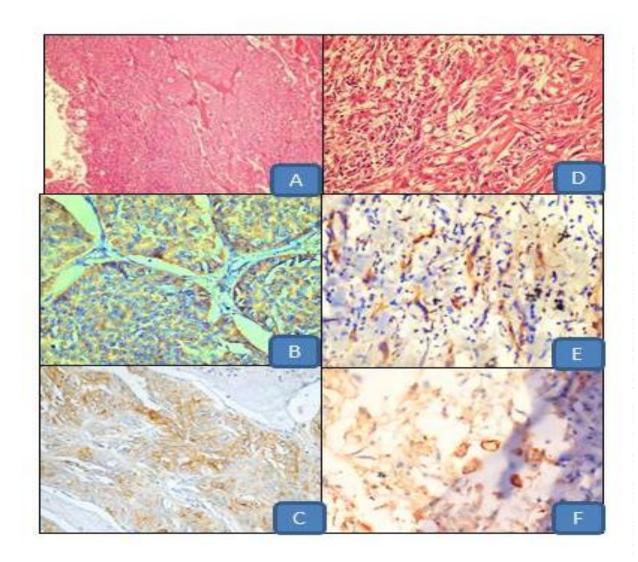
**Figure (1):** (A, B) showing characteristic nuclear features (enlargement, overlapping, clearing, grooving) (H&E x100, x400). (C&D) PD-L1 showing positive cytoplasmic expression in PTC, score 7 (IHCX100, X400), positive PD-L1 expression in lymphocytes (in set). (E&F) HBME-1 showing strong positive membranous HBME-1 expression and characteristic apical accentuation in PTC (IHC X400)



**Figure (2):** This figure highlight the difference of PD-L1 and HBME-1 expression in FVPTC, WDTUMP and NIFTP. (A) FVPTC (H&E X400). (B) PD-L1 showing positive cytoplasmic expression in FVPTC, score 6 (IHC X 400). (C) HBME-1 showing strong positive membranous expression with characteristic apical accentuation in FVPTC (H&E X 400). (D) WDTUMP (H&E X100). (E) PD-L1 showing positive cytoplasmic expression in WDTUMP score 1 (IHC X 400). (F) HBME-1 showing moderate positive membranous expression in WDTUMP (IHC X 200). (G) NIFTP showing absence of capsular invasion and PTC like nuclear features (H&E X400). (H) PD-L1 showing positive cytoplasmic expression in NIFTP , score 2 (IHC X 400). (I) HBME-1 showing weak positive membranous expression in NIFTP (IHC X 400).



**Figure (3):** FC showing capsular invasion (H&E x100). (B) PD-L1 showing positive cytoplasmic PD-L1 expression in FC, score 7 (IHC X400). (C) HBME-1 showing moderate positive membranous expression in FC (IHC X 400)



**Figure (4):** (A) PDTC, insular pattern (H&E X 100). (B) PD-L1 showing positive cytoplasmic expression in PDTC, score 5 (IHC X400). (C) HBME-1 showing moderate positive membranous expression in PDTC (IHC X400). (D) AC showing malignant spindle shaped cells (H&E X400). (E) PD-L1 showing positive cytoplasmic expression in AC score 3 (IHC x400). (F) HBME-1 showing moderate positive membranous expression in AC (IHC X400).