

**CD147 Expression in non-invasive and invasive  
breast carcinoma and its correlation with  
clinicopathological characteristics of these tumors  
Immuohistochemical & histopathological study**

**Thesis**

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## SUMMARY

This work aimed at studying the immunohistochemical expression of CD147 in non-invasive and invasive ductal carcinoma to correlate this expression with the different clinico-pathological aspects of the tumors.

Fifty formalin fixed, paraffin embedded breast tumor tissue sections were randomly collected from radical or conservative specimens. The cases were collected from the pathology department of Kasr el Aini hospital and a private laboratory in the time period between August 2014 and May 2015.

The data collected from the pathology reports of the cases included age of patient which ranged between 29 and 78 years with a mean age of 51.28 years, the number of masses where 24% of the cases showed a single mass and 76 % were more than one mass, T stage where TIS was the commonest (40%) and N stage where N0 was the commonest (50%).

An IHC report including the ER, PR, HER2 neu and Ki67 results was obtained for each case. 70% of our cases were ER positive, 56% were PR positive, 56% were negative for HER2 overexpression and 53% showed low Ki-67 proliferation index.

The paraffin blocks were serially sectioned and stained with hematoxylin-eosin stain for histopathological examination. Invasive breast carcinoma was the commonest histologic type (60%). 80% of the cases showed nuclear grade II and the remaining 20% were grade III with no reported grade I cases. The tumor sections were also examined for the presence of insitu component (positive in 44%).

Additional sections were prepared from the paraffin blocks and were immunostained with CD147 antibody. CD147 expression was considered positive in 48% of the cases. CD147 expression was weak in 11 cases (22%), moderate in 8 cases (16%), strong in 5 cases (10%), and negative in 26 cases (52%). In the current study, statistically significant correlation was found between the rate of CD147 expression and many of the clinico-pathological parameters (p-values were found to be less than 0.05) as histological types between invasive breast carcinoma and non invasive breast carcinoma ,age,necrosis,ER,PR,HER2 statuses,and Ki67,and no statistically significant correlation was found between the rate of

CD147 expression and other clinico-pathological parameters (p-values were found to be higher than 0.05) as histological types of invasive breast carcinoma, histological grade, insitu component, number of masses, T stage, N stage, and tumor size.