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Thesis Title	*Expression of P57 Immunohistochemical Marker In Complete and Partial Hydatidiform Mole by Using Tissue Microarray Technique*
Year	*2013*
Abstract	**Background:** **Hydatidiform mole is an abnormal form of pregnancy divided in to two types; complete hydatidiform mole and partial hydatidiform mole. Detailed histopathologic examination remains to be the basis for the diagnosis of hydatidiform mole (HM). However, poor sampling, necrosis, and earlier uterine evacuation can lead to uncertainty in the diagnosis. Also, the criteria are subjective, resulting in considerable interobservervariability.** **The P57KIP2 gene is paternally imprinted and maternally expressed, and the presence of its protein product serves as an adjuvant marker for the nuclearmaternal genome. Because a complete HM is the only type of conceptus lacking a maternal contribution, P57KIP2 immunostaining is correspondingly absent, whereas it is present in partial HM and normal pregnancy.** **Aim of the study:** **1.To evaluate the significance of the immunohistochemical marker P57KIP2 in the diagnosis of complete and partial hydatidiform mole .** **2.To compare the P57KIP2 immunohistochemical marker results withthat of ordinary Hematoxylin and Eosin slides histopathology results . Materials and Methods :** **Seventy cases of endometrial biopsies were obtained.Histologic evaluation of all cases was performed on routinesections stained with Hematoxylin and Eosin (H & E) and classified in complete andpartial hydatidiform mole (30 each) and (10 cases) of normal product of pregnancy (abortion), and negative control slides were also used.These cases were collected during the period from December-2011 to Augest-2012. New technique is adopted in this research that is; Tissue**

microarray in which twelve small cores of representative tissue samples, each measure 3 mm in diameterSections from microarray block are cut using a microtome, mounted on a single microscope slide and then analyzed by staining with Hematoxylin and Eosin, then another section made for the immunohistochemical staining with P57KIP2antibody.

Results:

• In this study of the 70 cases diagnosed as molar and normal pregnancies by H&E, the actual age range was from 17 to 50 years old, and the age distribution were; (mean 29 , median 27 , mode 20 years old), the majority of the cases (50%) were between the age of (20-29) years old whereas only (10%) of the cases were younger than 19years old, the correlation between the age of the patients and the type of the Hydatidiform Mole (HM) was not significant.

•Grades of patients with CHM based on H&E category were; 43.3% grade I, 53.4% grade II, and 3.3% grade III, and the age distribution for each grade was not statistically correlated.

• Regarding the expression of p57KIP2IHC Marker in cases of PHM diagnosed previously by H&E, 25 cases out of 30 cases which represented 83.3% expressed positive results. The remaining 5 cases which represented 16.7% expressed negative results, this means that they were definitely CHM.These findings were statistically highly significant.