University of Baghdad	
College Name	**MEADICIAL**
Department	***Radio-diagnosis***
Full name as written in passport	***Laith Fadhel Farman***
e-mail	
Career	**Assistant Lecturer** ◌ **Lecturer** ◌ **Assistant Professor** ◌ **Professor** ◌
	Master ◌ **PhD** ◌ **DIPLOMA** ●
Thesis Title	***Accuracy of ultrasound in diagnosis of Carpal Tunnel Syndrome in correlation with operative findings***
Year	
Abstract	**Carpal tunnel syndrome (CTS) is the most common entrapment neuropathy, US can be used as an alternative to (NCS) for diagnosis of CTS.US can assess the anatomy of the carpal tunnel, median nerve and also identify pathology of the surrounding structures that may compress the nerve.US is proposed as the initial diagnostic test in CTS based on similar sensitivity and specificity to NC studies, higher patient acceptability, easy availability lower cost and additional capability to assess carpal tunnel anatomy and guide injection.** **Aims of the study:** **To assess the accuracy of US in the diagnosis of CTS in correlation with the operative findings.** **Patients and Methods:** **A prospective study was conducted at Al-Shaheed Ghazi Al-Hariri teaching hospital and Baghdad teaching hospital in Baghdad medical City, during the period from 20th of December 2014 to the 30th of September 2015. Total of 65 patients were enrolled in this study, all of them where already improved and documented to have CTS by NCS, appropriate statistical tests were applied to the data accordingly. X-square was used to test the relation between ultrasound and operative findings. P-Value of less than 0.05 was considered significant.** **Results:** **The mean age of the patients was 45.9 ± 13 years (range from 19 to 74 years).The female to male Ratio (9: 1) with proximal percentage of 89.2% Female to 10.8% Male. The RT hand affected with percentage of 55.5%. LT hand affected with percentage of 29.2%, both RT and LT10 with percentage of 15.4 %. 52 patients were operated from total 65 patients.** **The Accuracy of Ultrasound was to as follow:** **87% accuracy with sensitivity of 88%, specificity 85% at P value =0.001, regarding the median nerve enlargement.**

	76% accuracy with sensitivity of 76%, specificity 100% at P value =0.017, regarding flattening of median. **71% accuracy with sensitivity of 38%, specificity 100% at P value =0.005, regarding fixation or decrease mobility of median never in dynamic examination.** **Conclusion:** • **Ultrasound accuracy in diagnosis CTS is very significant and the sensitivity of US is approaching that of NCS with accuracy reaching (87%).** • **There is significant correlation between US findings in CTS and the operative findings.**