

# **MRI STAGING OF ENDOMETRIAL AND CERVICAL CARCINOMA**

**Thesis**

**Submitted for partial fulfillment  
Of the MD degree in Radiology  
By**

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## **Abstract**

MRI is an ideal non-invasive technique and superior to other imaging modalities in the evaluation of pelvic abnormalities. MRI tells us the exact volume, shape, and direction of the primary lesion, local extent of the disease, and nodal status accurately, which helps the clinician in treatment planning.

### Aim of Work

To detect the impact of Magnetic resonance imaging in preoperative staging of endometrial and cervical carcinomas ,with special focus on: Evaluation of sensitivity of Magnetic resonance imaging staging , with cyto-histological diagnosis taken as the reference.

### Patient and Methods

The study included 50 cases (28 cases with endometrial carcinoma and 22 cases with cervical carcinoma) who performed dynamic contrast enhanced MRI for pre-operative staging. The patients' age ranged between (29 and 83 years) with a mean age of 50 years. They presented with abnormal uterine bleeding, post menopausal bleeding and/ or vaginal discharge. MRI results were compared with the histopathology results.

### Results:

The calculated sensitivity, specificity, overall accuracy, positive and negative predictive values of MRI in staging of endometrial carcinoma were 96%, 67%,92%, 96 % and 66% respectively.

The calculated sensitivity, overall accuracy and positive predictive value of MRI in staging of Cervical carcinoma was 100 %, 91%, 91% respectively.

Conclusion:

MRI imaging with its superior soft-tissue resolution is the single best modality for the preoperative staging of uterine carcinomas. It helps to decide operability, the type of operation and aids in the selection of patients who need a special referral to a gynecologist oncologist.

Keywords:

MRI-CT-AGC-HPV- SERM

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## List of Abbreviations

<b>ADC</b>	Apparent Diffusion Co-efficient
<b>AGC</b>	Atypical Glandular Cells
<b>AIS</b>	Adenocarcinoma In Situ
<b>AUB</b>	Abnormal Uterine Bleeding
<b>CIN</b>	Cervical Intraepithelial Neoplasia
<b>CIS</b>	Carcinoma In Situ
<b>CT</b>	Computed Tomography
<b>DES</b>	Diethylstilbestrol
<b>DW</b>	Diffusion-Weighted
<b>EESs</b>	Endometrial Stromal Sarcomas
<b>EIN</b>	Endometrial Intraepithelial Neoplasia
<b>ET</b>	Endometrial Thickness (ET)
<b>Fat-sat</b>	Fat Suppression
<b>FIESTA</b>	Axial Fast Imaging Employing Steady-state Acquisition
<b>FIGO</b>	Federation of Obstetrics and Gynecology (FIGO)
<b>FSE</b>	Fast Spin Echo
<b>HCG</b>	Human Chorionic Gonadotrophin
<b>HNPCC</b>	Hereditary Nonpolyposis Colorectal Cancer
<b>HPV</b>	Human Papilloma Virus
<b>HRT</b>	Hormone Replacement Therapy
<b>JZ</b>	Junctional Zone
<b>LAVA</b>	Liver Acquisition Volume Acceleration
<b>LEEP</b>	Loop Electrosurgical Excision Procedure

<b>LMSs</b>	Leiomyosarcomas
<b>LN</b>	Lymph Node
<b>MMR</b>	Mismatch Repair
<b>MRI</b>	Magnetic Resonance Imaging
<b>PaP</b>	Papanicolaou (pap) Smears
<b>PCOS</b>	Polycystic Ovary Syndrome
<b>PMP</b>	Postmenopausal Bleeding
<b>RARE</b>	Rapid Acquisition with Relaxation Enhancement
<b>SCC</b>	Squamous Cell Carcinoma
<b>SCJ</b>	Squamocolumnar Junction
<b>SERM</b>	Selective Estrogen Receptor Modulator
<b>SIL</b>	Squamous Intraepithelial Lesion
<b>TNM</b>	Tumour, Nodes, Metastasis
<b>TVS</b>	Transvaginal Ultrasound
<b>TVU</b>	Transvaginal Ultrasound (TVU))
<b>UICC</b>	The International Union Against Cancer (UICC)

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