**Presentation title:**

**“APPARENT DIFFUSION COEFFICIENT AS A PREDICTOR OF TREATMENT RESPONSE IN PELVIC MALIGNANCIES”**

**Corresponding Author name: Dr. Thamizholi Selvaraju**

**Affiliation:** **ASSAM CANCER CARE FOUNDATION**

**Ph. No: 919047272928**

**Email ID’s: Thamizholi.selvaraju@gmail.com**

**WhatsApp No: 919047272928**

**Any alternative number: 919986663264  
  
Twitter:**

**LinkedIn:   
  
Facebook:**

**Other Authors if any: Dr. Hasib A.G**

**Presentation type: Oral presentation**

**ABSTRACT:**

**“APPARENT DIFFUSION COEFFICIENT AS A PREDICTOR OF TREATMENT RESPONSE IN PELVIC MALIGNANCIES”**

**INTRODUCTION:** Pelvic malignancy is related to tumour arising from organs in pelvis. It includes cervical cancer, endometrial cancer, ovarian cancer, rectal cancer, prostate cancer, and bladder cancer. Both rectal and cervical malignancies are treated by chemoradiation, and their treatment response is assessed by Imaging modality.

**OBJECTIVES**: To assess treatment response using Diffusion Weighted Magnetic Resonant Imagining, ADC in Pelvic malignancies before and after Chemoradiation.

**MATERIALS & METHODS**: 72 patients with histologically proven Pelvic Malignancies Satisfying inclusion and exclusion criteria were enrolled in the study. Out of 72 patients 54 patients were Carcinoma cervix and 18 patients were Carcinoma rectum. Carcinoma cervix patients were treated by EBRT 46-50Gy / 23-25 fractions, 5 fractions a week, concurrent with weekly Inj.cisplatin/carboplatin followed by 3 sessions of HDR brachytherapy. Locally advanced rectal cancers treated by Neo-adjuvant chemo-radiation 50.4Gy /28 fractions, 1.8Gy per fraction, 5 fractions a week with concurrent Tab.capecitabine 825mg/m2 followed by surgery. All patients were evaluated by pre and post treatment Diffusion Weighted Magnetic Resonant Imagining-ADC values and tumour size. Treatment responses were assessed as complete response, partial response, stable disease and progressive disease.

**RESULTS:** AD**C** Values for both carcinoma cervix and carcinoma rectum were found to be increased after treatment with chemo-radiation. The mean ADC value increased with 44.26% compared with a decreased in tumour size of 57.86%. Responders showed a large change in ADC value than non-responders.

**CONCLUSION**: The correlation of Pre-treatment ADC value, as well as ADC value changes after chemo-radiation, with treatment outcome provides a potential basis that may ultimately lead to use of DWI for predicting and monitoring treatment response in pelvic malignancy.

**Biography:**

Dr. Thamizholi Selvaraju MBBS., MD., joined Assam Cancer Care Foundation in Nov2020 as Consultant and Head Department of Radiation Oncology. He also served as Consultant and Head of Clinical Oncology at Madurai Cancer Centre. He has been serving in the field of Oncology for more than Six Years.

He graduated Bachelor of Medicine and Bachelor of Surgery from Vinayaka Mission Medical College, Pondicherry and post-graduation in Radiation Oncology from Father Muller Medical College, Mangalore, Karnataka.

An Expert in handling precision Radiotherapy Techniques like 3DCRT, IMRT, VMAT, IGRT, 4DCT, and SBRT. His area of Interest in Head and Neck cancer, Breast, and Gynecological Malignancy. He is also experienced in handling Chemotherapy for all solid tumors.

He also practices various brachytherapy like Intracavitary, Interstitial, Intraluminal and surface mould brachytherapy. Till date he has done more than 500 brachytherapy procedures for various subsites like Cervix, Endometrium, Esophagus, Breast and Soft Tissue Sarcoma.

Dr. Thamizholi Selvaraju is currently the Member of Credential Committee in Assam Cancer Care Foundation and also an active member in framing cancer treatment protocol for both Assam cancer care foundation and Alamelu Charitable Foundation, India.

A dedicated Educator, Dr. Thamizholi Selvaraju has mentored in training more than Hundreds of nursing students through Nursing Fellowship Program and mentored under graduation and post-graduation students in the field of oncology.

He took part in various academic discussion within and outside our organization as speaker and panelist. He holds various paper publication till date.