HIGHLIGHTS:

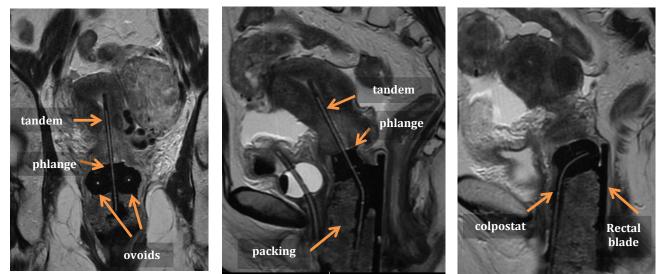
- A successful image-guided adaptive brachytherapy program is a multidisciplinary collaboration
- MRI-guided adaptive brachytherapy allows for elegant target contouring and decreased radiation to adjacent due to the excellent tissue contrast

TALK TITLE: Patient Preparation, Safety & MRI Protocol Considerations

TARGET AUDIENCE: Radiologists and medical physicists who will collaborate with radiation oncologists to provide MRI-guided adaptive brachytherapy

OUTCOME/OBJECTIVES:

1. Understand the principles of MRI-guided adaptive brachytherapy.



- 2. Understand the imaging protocol
- 3. Recognize potential immediate complications of brachytherapy instrumentation

PURPOSE : To assist in creating a robust program to facilitate MRI-guided adaptive brachytherapy

METHODS:

- 1. Describe the components of a successful MRI-guided adaptive brachytherapy program
- 2. Describe the imaging protocol
- 3. Illustrate expected appearance of the brachytherapy instruments as well as potential complications

CONCLUSION : Creating an MRI-guided adaptive brachytherapy program requires multidisciplinary collaboration and results in decreased rates of disease recurrence while limiting toxicity to adjacent organs.

REFERENCES

- 1. Potter R, Georg P. Dimopoulos JCA, et al. Clinical outcome of protocol based image (MRI) guided adaptive brachytherapy combined with 3D conformal radiotherapy with or without chemotherapy in patients with locally advanced cervical cancer. Radiother Oncol 2011; 100: 116-123
- Kharofa J, Morrow N., Kelly T., Rownd J., Paulson E., et al 3T MRI-based adaptive brachytherapy for cervix cancer: Treatment technique and initial clinical outcomes. Brachytherapy 13 (2004) 319-25
- Dimopoulos JCA, Petrow P., Tanderup K., Petric P., Berger D., Kirisits C., Pedersen EM., van Limbergen E.V., Haie-Meder C., Potter R. Recommendations from Gynaecological (GYN) GEC-ESTRO Working Group (IV): Basic principles and parameters for MR imaging within the frame of image based adaptive cervix cancer brachytherapy. Radiother Oncol. Apr 2012; 103(1): 113-122