



# SCHOOL

## ESTRO TTG Grant report

*Period of visit: 29.09.19- 12.10.19*

*Venue: Mount Vernon Cancer Hospital, Northwood, London, UK. Institute and Country*

*Host supervisor: Professor Peter Hoskins.*

### Aim of the visit

The aim of the visit was twofold: firstly to learn about prostate cancer brachytherapy, and to be updated on the advancements of brachytherapy. Recent publications show that the incidence of prostate cancer is increasing in the Indian urban population. With ongoing health check-up programmes, many patients will need prostate brachytherapy in the near future, either as a sole treatment or as a boost after external beam radiotherapy. There is less expertise in the practice of brachytherapy among Indian radiation oncologists than in more established fields, and my visit was intended to fill that gap. My experience will help us to start a prostate cancer brachytherapy programme in our department. I hope to share my learning experience with my colleagues and train the postgraduate trainees in my hospital.

### Details of the scientific content of the visit

During the visit, I had the opportunity to understand the principles and practice of high dose rate (HDR) image guided brachytherapy in prostate cancers. I enjoyed getting involved in decision making for prostate brachytherapy in terms of brachytherapy procedure, planning and treatment. The use of ultrasound for the procedure to insert the catheters, and subsequent imaging by MRI and CT scans for contouring and planning purposes were very helpful for me to understand the implant, contouring and planning principles of prostate brachytherapy. In the operating theatres I could attend many implant procedures, in which HDR brachytherapy treatment was planned as a boost treatment, monotherapy or even for salvage purposes. The chance to gain experience of almost all scenarios that could happen in HDR prostate brachytherapy has given me confidence to start the programme in my home institute.

### Results from the studies undertaken

For me it was an excellent experience to visit the pioneer institute in the field of prostate brachytherapy. I could understand the uniqueness and novelty of the art to treat prostate cancer. I also learned some new concepts and advantages of the advanced applicators and templates they were using there. Of particular interest was the flexible applicator that they had devised themselves for prostate and gynaecological brachytherapy. It was designed to be very versatile. I hope to start the use of prostate brachytherapy soon in my hospital. Another useful experience to remember was the use of multiple CT scans and the correction thereof made just before delivery of treatment to accommodate changes of needle position, thus doing away with the uncertainties of catheter displacement. I will cherish my memories with the medical physicists there for the valuable insights they gave me while planning the cases. This was a very short period to do any study, but back home we plan to perform a dosimetry study to compare Cyberknife™ stereotactic body radiation therapy (SBRT) with HDR prostate brachytherapy after we have gained experience in treatment with HDR brachytherapy implants. The visit will also form the foundation stone for that project.



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