Going Live with CivaSheet: Steps for Treatment Planning and Commissioning

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Disclosures

• None

Objectives

• Documentation
• TPS Commissioning
• Clinical tips and tricks
Written Directive


TPS Commissioning
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- Varian BrachyVision
- TG-43 source modeling
- Source parameters provided by the vendor
  - Dose rate constant
  - Radial dose function
  - Anisotropy function
- All data have been calculated using MC
Case Studies

• 9 scheduled cases, 6 implanted

1. Leiomyosarcoma of the retroperitoneum
   • Marginally resected and then underwent radiation and chemotherapy
   • Follow-up surgery to inspect possible residual disease of the S1 nerve root

2. Sarcoma at the bifurcation of the aorta
   • Excessive tumor growth

3. Left buttock sarcoma
   • Tiny, curved tumor bed
   • Surgeon’s first case
Case Study #2

- 19 y/o female
- Malignant phyllodes tumor of right breast
- Partial mastectomy followed up by radiation and chemotherapy
- Tumor recurred in right chestwall
- Plan was to resect tumor and chest wall and place the CivaSheet around the resected chestwall
- 55 Gy to 5 mm
Case Study #2

Case Study #3

• 44 y/o female
• Retroperitoneal liposarcoma
• Resected in 2008 followed by radiation therapy
• Recurrence in 2017, again resected and radiation therapy
• Tumor recurred again near left psoas muscle
• Plan was to resect tumor with partial colonectomy and place the CivaSheet in tumor bed
• 40 Gy to 5 mm
Case Study #3

• 64 y/o male
• Mediastinal liposarcoma
• Radiation therapy (30 Gy in 5 fx) to the mediastinum followed by surgery
• CivaSheet to be placed in tumor bed
• 45 Gy to 5 mm

Case Study #4

• 64 y/o male
• Mediastinal liposarcoma
• Radiation therapy (30 Gy in 5 fx) to the mediastinum followed by surgery
• CivaSheet to be placed in tumor bed
• 45 Gy to 5 mm
Case Study #4

- Patient previously treated with CivaSheet
- Retroperitoneal liposarcoma near left psoas
- Tumor recurred superior to the previous CivaSheet
- 45 Gy to 5 mm

Case Study #5
Case Study #5

CivaSheet

- Safely implemented new technology
- Careful commissioning
- Policies and procedures in place
- Take pictures!
- Threshold the sheet for post implant dosimetry

Thank you!

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- CivaTech Support
  - Ren Babcock