


PARDISNOOR NILOO

Patient Selection for Tomotherapy

Sara Samiee MD FRCPC

PARDISNOOR IMAGING AND CANCER CENTER



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Objectives

- At the end of this session we hopefully will be able to:
 - Have a fair understanding that when our patient absolutely or relatively benefits from complicated technique/ system
 - Select Tomo/ IMRT technique for our patients more effectively

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Advanced technique as a tool in our hand



- Radiation Oncologist Job
 - Cure
 - Palliate



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Advanced technique as a tool in our hand



- Radiation Oncologist Job
 - Cure
 - Radical
 - Adjuvant
 - Neoadjuvant
 - Palliate



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Advanced technique as a tool in our hand



- Radiation Oncologist Job
 - Cure
 - Radical Treatment
 - Head and Neck - Cervix - Sarcoma - Brain Tumours - Lung
 - Adjuvant
 - Breast - Gastric - Brain Tumours - Sarcoma
 - Neoadjuvant
 - Rectum - Esophagus
 - Palliate



Advanced technique as a tool in our hand

- Radiation Oncologist Job
 - Cure
 - Radical
 - Adjuvant
 - Neoadjuvant
 - Palliate
 - Pain - Bleeding - Obstruction



Thinking in the office



- Coverage of a target
- Avoidance of critical structures
- Conflict of these two





Be a doctor




Disease Factors
Patient Factors
Treatment Factors

Advanced technique as a tool in our hand


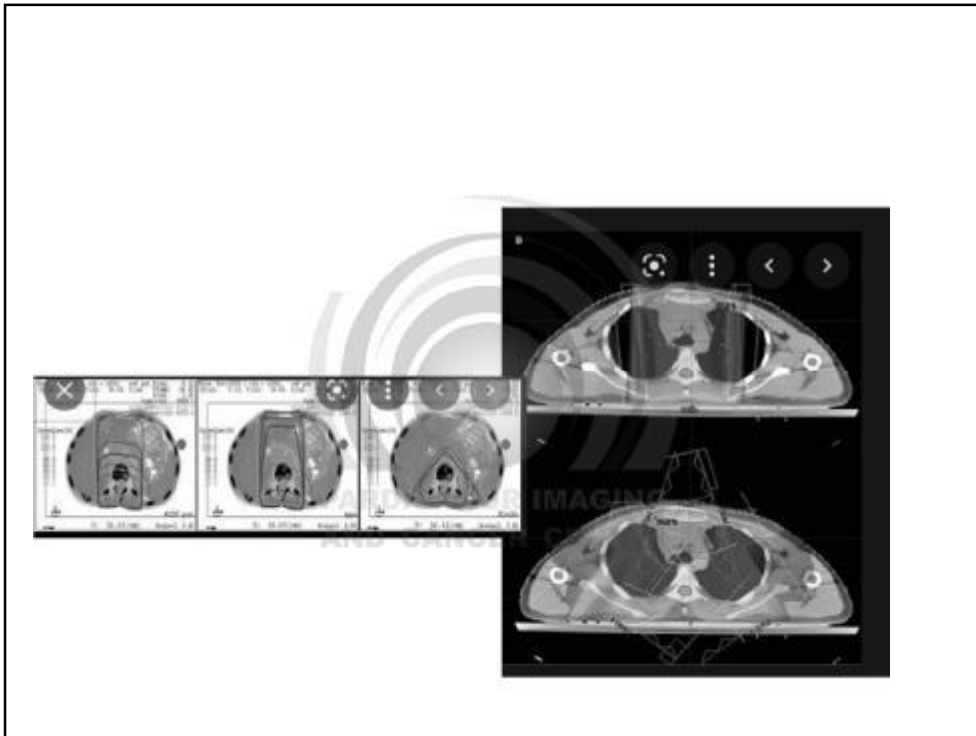


- Radiation Oncologist job
 - Cure
 - Radical
 - Adjuvant
 - Neoadjuvant
 - Palliate

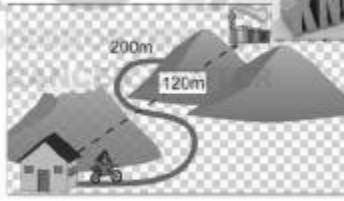



- Is the chance of cure better?
 - Better coverage
 - **Less side effects** and hence better tolerance of systemic treatment or radio-therapeutic treatment
 - More accuracy
- Would be a better chance of palliation?
 - Less side effects
 - Better coverage
 - Re-RT



This way complex technique is always a selection






- Cost
- Expertise
- Access
- Balance



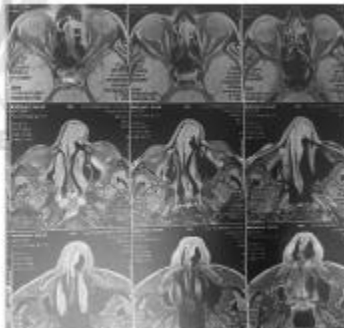

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Typical Scenario that would push you toward complexity



- Use your tools wisely
- When the target is close to OAR
- When your typical plan covers a big volume of normal tissue (AP-PA)
- HnN
- Prostate
- Sarcoma

Head and Neck



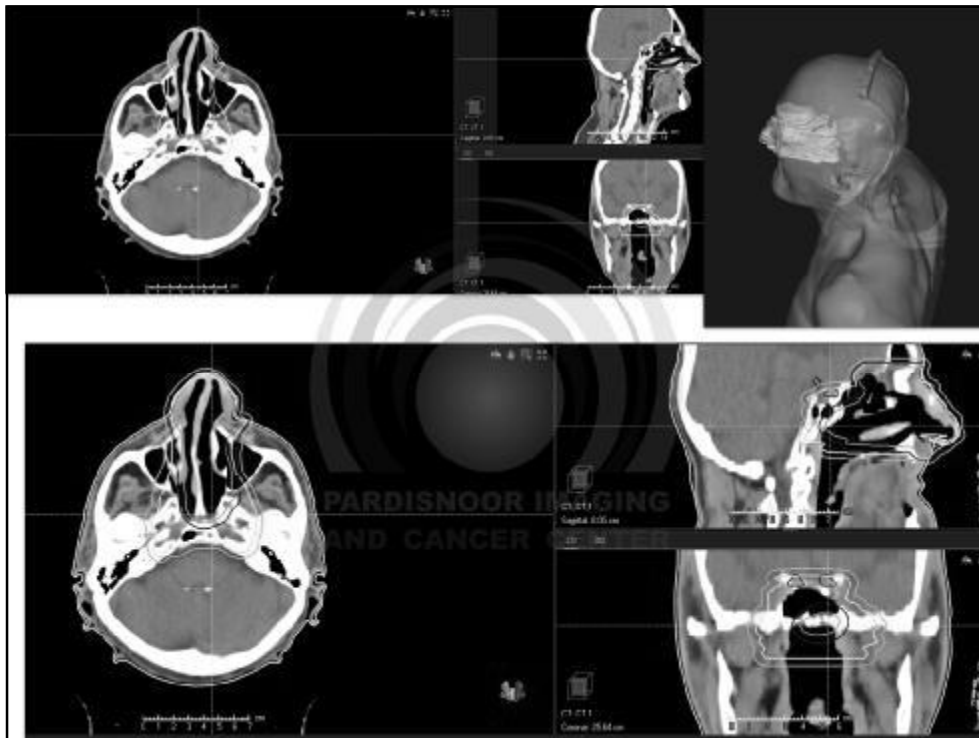
- A 58 year old male otherwise healthy
- Presented with nasal voice
- Resection → ACC
- Re-resection with complete resection of nasal conchae → no residue
- Referred for Adj RT

Thought process to see if I should propose TOMO

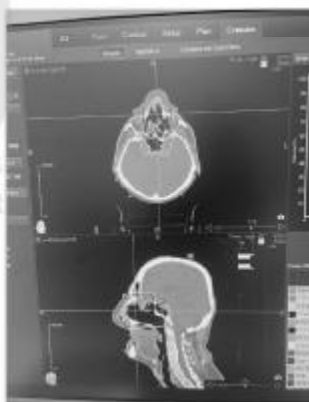
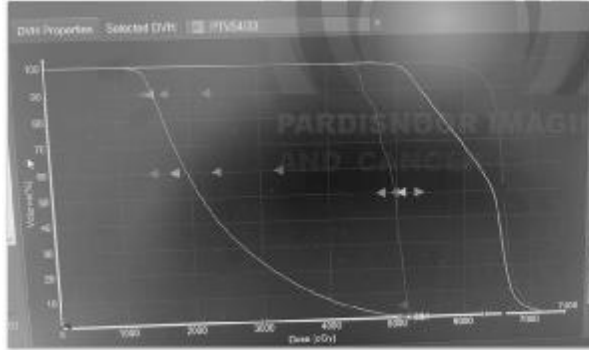



- What is the potential volume?
 - I think of high grade salivary gland ca CTV
 - I know I have to go potentially to the skull base/ PPF
 - I know my dose → 66Gy
 - Proximity to Chiasma (Tolerance 54)




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- One should have no shame to push for complexity, expenses and specialized referral.
- 66 & 54Gy / 33 – simultaneous boost
- OC → 52 (1%) ; BS → 48 (1%)




We have treated a patient like this. She is anatomic wuse lucky enough that even parotids can be spared.




Prostate




- The target that runs away



The illustration shows a man in a dark suit and tie, holding a bow and arrow, aiming towards a target. The target is a circular bullseye with a face and legs, appearing to be running away from the man. The background is dark with some faint, repeating text.

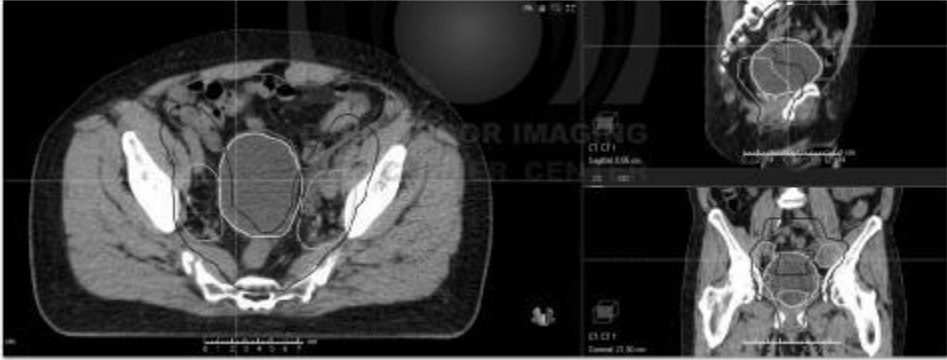



- 68 yr old male
- Hx or prostatectomy
- LN+ in PET-CT → Thinking

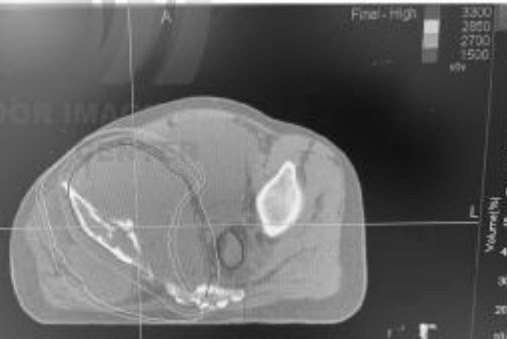
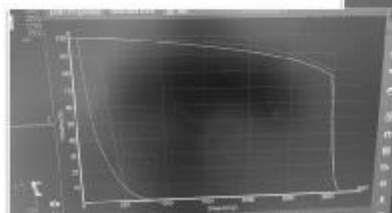
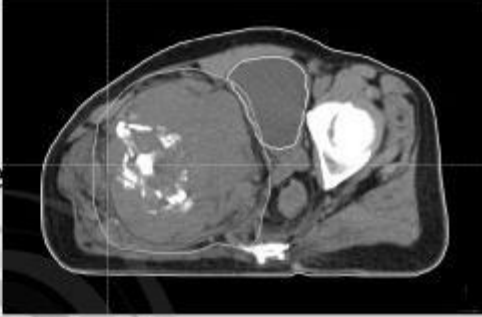


The illustration on the left shows a person sitting at a desk with a computer monitor, looking thoughtful with a hand on their chin. A lightbulb is glowing above their head. To the right is a 2x2 grid of PET-CT scan images showing cross-sections of the pelvic region.

- A chance for cure
- Why not



- Sarcoma
- UC
- We aimed for zero dose



Truly Palliative

- » 57 year old female
- » Pancreas locally advanced last year
 - » Borderline Unresectable
- » Treated with CRT
 - » Resectable!
- » No Residue
- » Now presents with cord compression at T11
- » Bowels
 - » 45Gy
- » Spinal Cord
 - » 35Gy

It's tricky! 🖥️

