

HyTEC: Goals, Accomplishments, Challenges, Future

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Disclosures

Marks Grants:

- Current: NIH, CDC
- Recent: Lance Armstrong, Dept Defense

Dept Grants:

- Past: Accuray/Tomotherapy, SunNuclear

Marks: Unpaid "Consultant" BCBS, SunNuclear, Morphormics, Elekta, IBA

QUANTEC:

QUantitative Analysis of Normal Tissue Effects in Clinic

- NTCP only. Mostly **conventional** fractionation
- Some hypo-fractionation: brain, lung, liver

HyTEC:

Hypofractionated/High Dose Tissue Effects in Clinic

- NTCP and TCP
- Jimm Grimm et al, AAPM effort

Goal: Summarize dose/volume/outcome data
Not a guideline !!

AAPM Working Group: SBRT

Thank you AAPM !

SBRT: effective local therapy

“Locally-Cure” primary or metastatic lesions

↑ Early-stage cancers (e.g. lung); screening, imaging

↑ Oligo-mets: imaging (e.g. PET)

SBRT exciting growing role !!

HyTec: Define the dose/volume/outcome data



Rubin P, Green J. Solitary Metastases.
Springfield, IL: C. C. Thomas 1968.

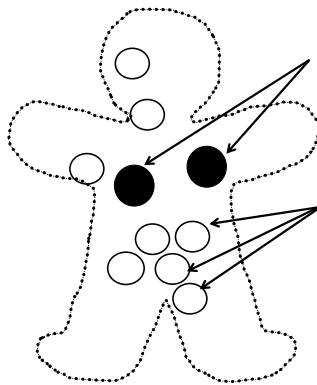
Rosenberg SA. Surgical treatment of metastatic cancer. Philadelphia, PA: Lippincott Williams & Wilkins; 1987.

“We propose the existence of a clinical significant state of oligometastases.....limited in number and location ...”

Hellman S, Weichselbaum RR. Oligometastases. *JCO* 1995

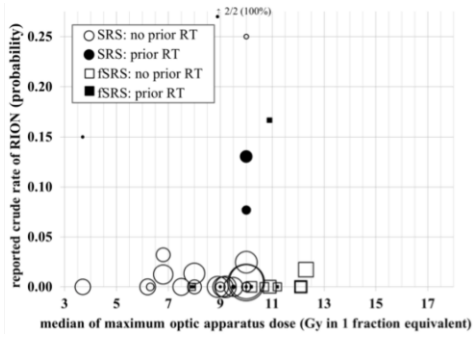


Courtesy Mike Milano, Univ Rochester

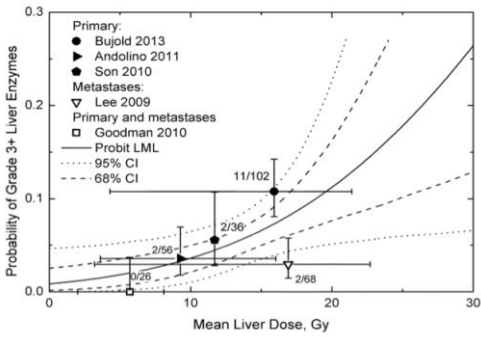


SRS/SBRT to the **Primary or mets** we see

Systemic agents for the disease we do not see



- HyTec: Optic Nerve NTCP; Mike Milano et al



- HyTec: Liver NTCP; Enzymes; Moyed Miften

Next speakers:

Today: Lijun Ma: Cord NTCP and Stan Benedict: Spine TCP

Site	TCP	NTCP
Brain	Scott Soltys, Jinyu Xue	Michael Milano, Issam El Naqa
ENT	Dwight Heron, Jimm Grimm	John Austin Vargo, Jimm Grimm
Lung	Percy Lee, Allen Li	Feng-Ming Spring Kong, Ellen Yorke
Abdominal	Karyn Goodman, Wolfgang Tomé	Karyn Goodman, Ellen Yorke
Pelvis	Ronald Chen, Michael Joiner	Nathan Sheets, Issam El Naqa
Spine	Scott Soltys, Michael Lovelock	Arjun Sahgal, Andrew Jackson

Acknowledgments

- Jimm Grimm: Force behind this all
- HyTEC Steering Committee: Jimm Grimm, Ellen Yorke, Andy Jackson, Jinyu Xue, Brian Kavanagh, Larry Marks
- HyTEC Authors, ASTRO, AAPM; Reviewers
- PENTEC: Sandy Constine et al
- Emami et al, Rubin, Cooper, Phillips, et al

AAPM Working Group: SBRT

AAPM lead effort
 Mega-thanks to the AAPM
 Staff and leadership and many members



Physicists ↔ Clinicians
 AAPM ↔ ASTRO
