

## Bolus Electron Conformal Therapy: Scalp

Bouthaina Dabaja, MD and Rajat Kudchadker, PhD  
UT MD Anderson Cancer Center, Houston, Texas



### PATIENT HISTORY / PRESCRIPTION

- 52 year old female
- Stage IV Diffuse large B cell lymphoma
- Lesion eroded through skull
- Post-chemo radiotherapy
- Energy: 9 e-
- Rx: 30 Gy / 15 fractions
- Dose spec: 90%

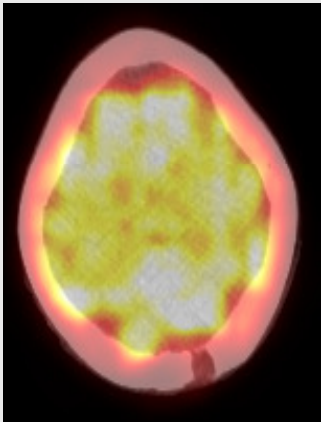


### DOSE PLANNING



### ALTERNATIVE PLAN

- Skull concave not optimal for superflab
- Brain receiving higher dose
- Physician opted to use custom electron bolus



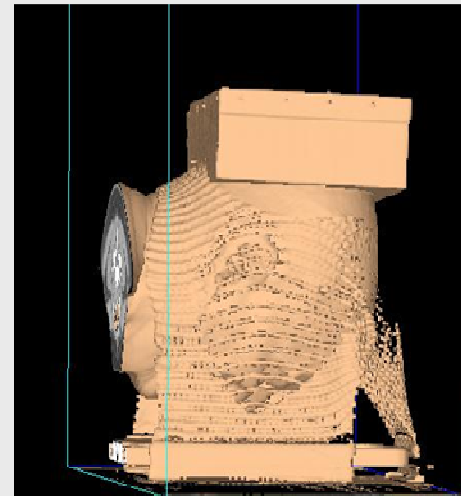
### BOLUS SETUP

### FOLLOWUP (18 months post treatment)

- Treatment successful, patient in remission since Tx
- However, patient has had permanent hair loss since the skin dose was high due to electrons plus bolus
- Dose above 25 Gy gray is usually associated with possible permanent hair loss

### SUMMARY

- Customized bolus device delivered highly conformal dose distribution.
- Dose distribution for skin dose very accurate and increased for customized bolus treatment technique.



Pinnacle Surface Rendering



Patient Setup