

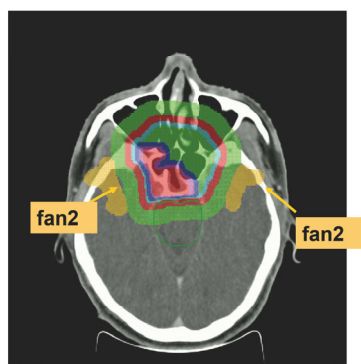
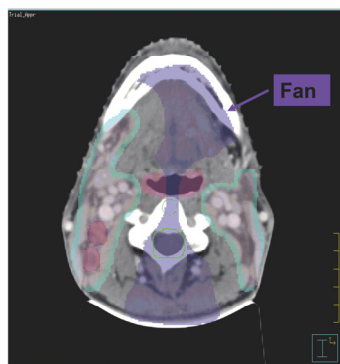
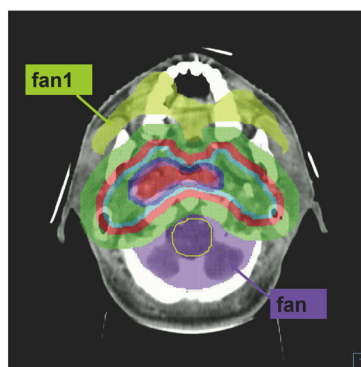
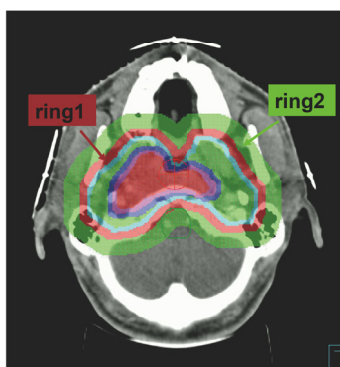


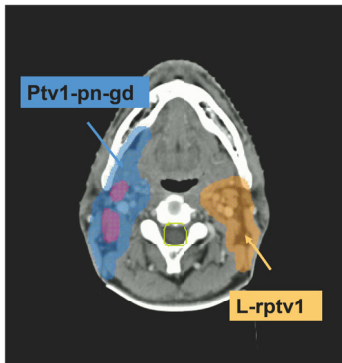
鼻咽癌计划设计

河北医科大学第四医院
曹彦坤

材料与方法

Pinnacle³ 8.0
Elekta Precise





IMRT Parameters

Beam	Optimization Type	Allow jaw motion/ Split beam?	Max iterations
Beam_1	DMPO	Yes	30
Beam_2	DMPO	Yes	15
Beam_3	DMPO	Yes	0.001
Beam_4	DMPO	Yes	
Beam_5	DMPO	Yes	

Stopping tolerance: 0.001

Apply tumor overlap fraction? Yes No

MLC delivery? Yes No

Minimum segment MUs: 16

DMPO Settings

Maximum number of segments: 120

Compute final dose? Yes No

Delivery Constraints

Minimum segment area: 1.4 cm²

Leaf/jaw overlap: 0.5 cm

Beam Splitting

Overlap distance: 2 cm

Machine: 1260

ROI	Type	Constrain	Target cGy	% Volume	% Variation	Weight	Objective Value	a	gEUD
GTVrx	Uniform Dose		7480			50	0.0750709		
GTVrx	Min Dose		7420			80	0.0259421		
GTVrx	Min DVH		7450	99		100	0.0103715		
GTVrx	Max Dose		7550			20	0.0133803		
PTVrx	Min DVH		7000	96		80	9.854e-06		
PTVrx	Min Dose		6880			70	0.0263762		
PTVrx	Max Dose		7500			20	0.0150229		

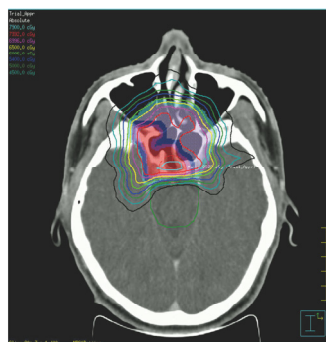
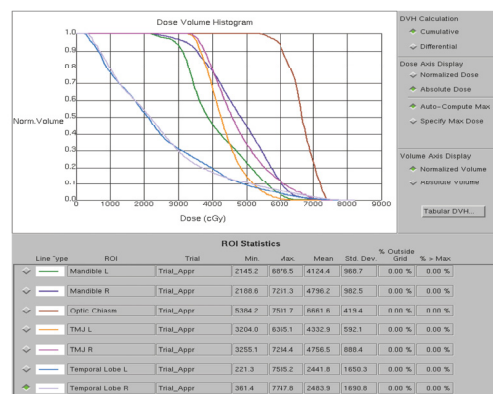
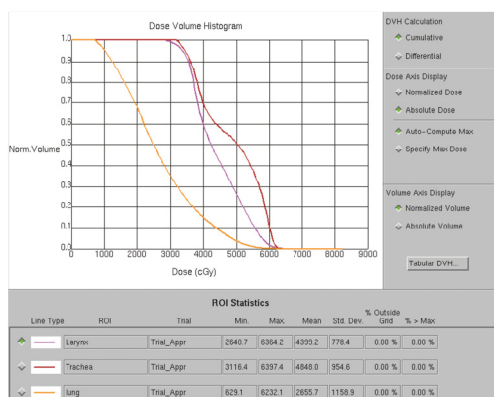
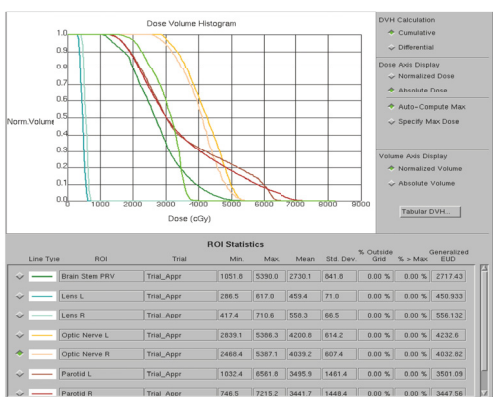
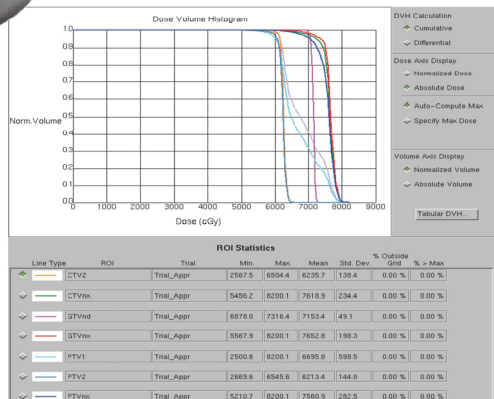
ROI	Type	Constrain	Target cGy	% Volume	% Variation	Weight	Objective Value	a	gEUD
Brain Stem PTV	Max Dose		5100			30	0.00701678		
Spinal Cord PTV	Max Dose		5300			40	9.1658e-05		
Lens L	Max Dose		7000			10	0.000306359		
Lens R	Max Dose		7000			10	0.000272159		
Orbit Left L	Max Dose		5100			15	0.00183576		
Orbit Right R	Max Dose		5100			15	0.0013571		

ROI	Type	Constrain	Target cGy	% Volume	% Variation	Weight	Objective Value	a	gEUD
Parotid L	Max DVH		2900	48		20	0.00029258		
Parotid L	Max EUD		3000			1	0.00527078	1	3487.02
Parotid R	Max DVH		2900	48		20	0.000781054		
Parotid R	Max EUD		3000			1	0.00415708	1	3432.56

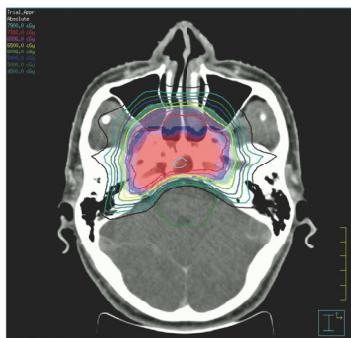
ROI	Type	Constrain	Target cGy	% Volume	% Variation	Weight	Objective Value	a	gEUD
Ring1	Max Dose		6000			8	0.00882094		
Ring2	Max Dose		5400			5	0.00432891		
other	Max Dose		4500			2	0.000305444		
other	Max EUD		2000			1	0.00173199	1	2166.12
tan	Max Dose		3500			10	0.0361722		
test1	Max Dose		4000			3	0.00380308		
test2	Max Dose		4000			2	0.00400025		



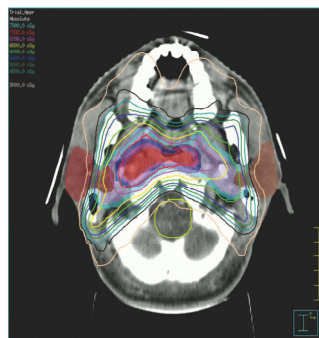
结 果



蝶窦层面



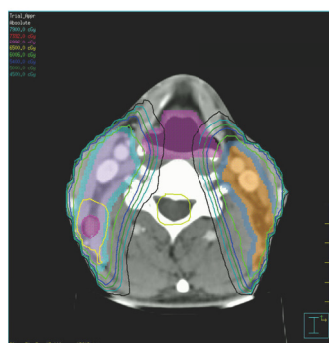
颅底层面



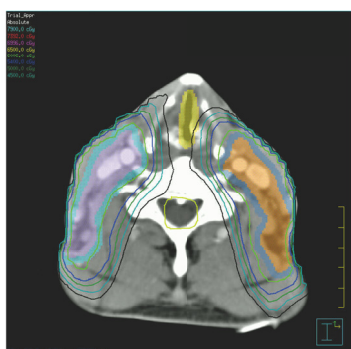
口咽层面



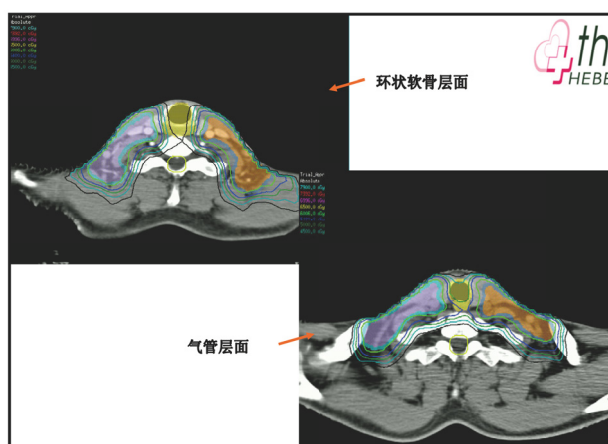
口底层面



会厌层面

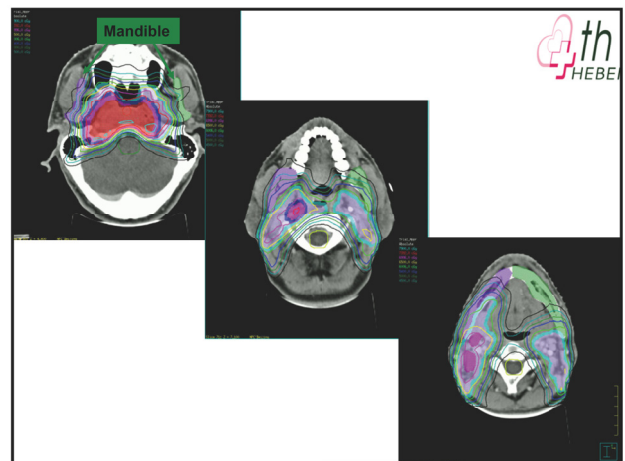
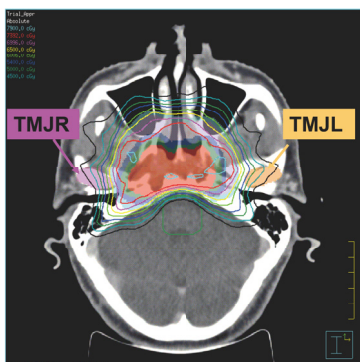
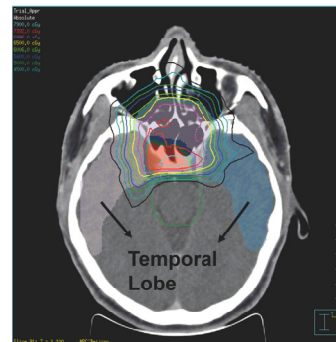
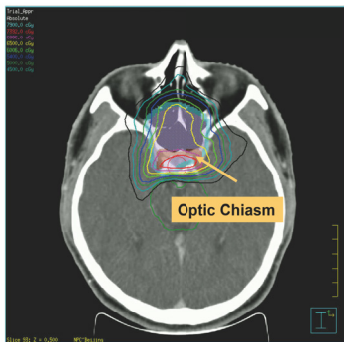
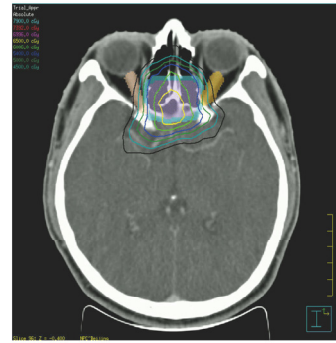


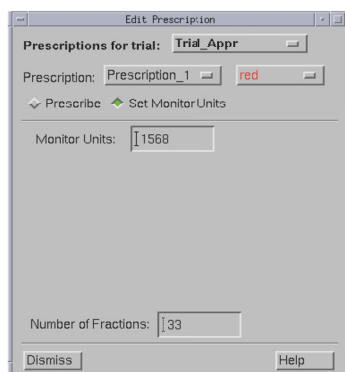
声门区层面



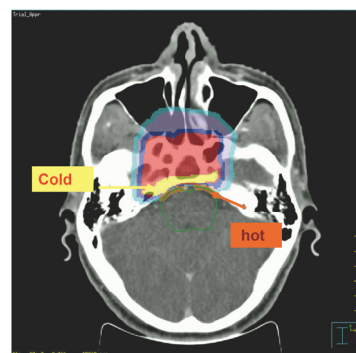
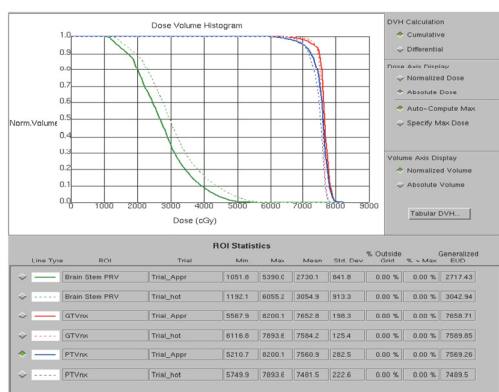
环状软骨层面

气管层面





讨 论



ROI	Type	Constrain	Target cGy	% Volume	% Variation	Weight	Objective Value	a	gEUD
ROI_E	Max Dose		15000			10	0.0776663		
ROI_F	Min Dose		17650			10	0.091381		
ROI_E	Min Dose		17650			10	0.00610567		
ROI_D	Max Dose		14800			5	0.0689816		
ROI_H	Max Dose		14800			7	0.0389087		

结 论



- 靶区
- 正常组织

