

AbstractID:9657Title :Analysisof bestfittingTomo treatmentplanning parametersfor Prostate,lung,breast,brain,liver,Head&Neck, Breast,Pelvisand Pancreaslesions from our3yearsexperienceplanningfor nearly 1000patients.

Purpose:

Best fittingTomotherapy treatmentplanningparametersfor differentlesion sites.

Materials &Method:

Tomotherapy treatment planningand deliverydepends onparametersthatarenot necessarily familiar toa radiotherapyphysicist.It is importantfor planners tofamiliarizethemselvewiththeseparametersandtheir impact onthe time requiredfor delivery:

51 Prostateplans,268lungs,197Brain,21Liver,38Head&Neck,46Breast,51Pelvisand59Pancreas plansfor parameters likePitch, Gantryperiod,treatmenttime,deliverymodulation,totaldose,calculatedtreatmentlengthandslicewidth wereanalyzedforthebestfit.

Results:

ForProstate average modulation delivery factor of 1.8withaveragedelivered doseof51.53Gy and average treatmenttime of 342.4secondswas used.Averagenumbersof fractionswere27.For Lung average doseof 50.70Gy with average modulationof1.726. Averagetreatmenttime was338.6seconds andaveragenumbers of fractions was24. ForBrainlesions average doseof 28.42 Gywith average modulationof 1.71was used.Averagetreatment time was401.45seconds.Averagenumbersoffractions was11.Forliverlesions average doseof28.42 Gy wasused. Averagemodulation factor of1.71 andaverage treatmenttime of401.45seconds.Averagenumbers of fractions was11. ForHead &Neck average doseof 36.08Gywith average modulation factor of1.81was used.Average treatmenttime was420.64 seconds.Averagenumbersoffractions was20. ForBreast average doseof41.44Gy with average modulationof 1.97.Averagetreatmenttime of429.27 seconds withaveragenumbersof fractions of24. ForPelvis average doseof 38.8Gy with average modulationof 1.95. Averagetreatment time was344.91 seconds.Averagenumbersoffractions was19. ForPancreas average doseof46.88 Gywith average modulationof 1.78.Averagetreatmenttime was266.64 seconds.Averagenumbersoffractions of24.