AbstractID:8634Title :Dosime tricPa rameterCompa risonoftheElec tronicTissue CompensatorTechnique withthe ConventionalPh ysicalWedgeTechnique fortheWhole BreastTreatm ent

Purpose: Tocompar ead osimetricbenef itbetweenelect ronic tissuecompe nsator(ETC)tech niqueandt heconventi onalphys ical wedge(PW)t echniquef ora wh oleb reast(WB)tangen tialfieldirradi ationtreatment. **MethodandMaterials:** 17b reastcases,with chestwallseparati on16to26cmatnormaliza tionpoi ntsli ce,wereinclude dinthisstudy.Eclip sePlanningS ystem(V7.3)wasu sed toge nerate aplan.Th epl anr emainedwithasamebeam se tup,beam weighting,normalizationpoi nt,andener gy(6MVor6M V mixedwith18MV) inb othtech niqueforeachcase.Thebreastti ssuewasou tlinedas aplannin gtargetvolume(P TV). ForaPT V dosec overage information,PTV encompassedby95%isod osel ine(V $_{95}$) and PTV receivedthe minimumdos e(D $_{min}$)were s tudied. Toexamineah ighdose region,a PTVr eceivedatleast105%prescri ptiond ose(V $_{105}$)was comp uted. Tost udydos einhomogenei ty (DI) inthePTV, ar atioof thediffer enceofD $_{max}$andD $_{min}$tothe prescriptiondos ewa ses timated.I na dditional,at otalMUfr omeach planwa srecordedton oton lymeasu rethelinacbeamon time,but a lsoasafact orfort hem achinescat terandleaka geevaluation. **Result:** Bycomparin gwiththe PWpl an,(1)TheP TVco verage, V$_{95}$, showedqu itesim ilar(difference within0.5%)in both techniquesandD $_{min}$ waslowe ronapercentage of1.2±9 .1fromETCplan;(2)Th ehot spot,V $_{105}$,wasredu cedb yaperc entage of 2.9±2.2inETCplan.(3) DIwa sde creasingb y apercentageo f1.3± 12.3i nETCplan .ThetotalMUreducedbyabout8.9±17.1 percentin ETCplan. **Conclusion:** ETCtechniquepre sentedadosim etricbenefitf ortheWBtangentialfieldt reatment.Andthese benefitsw eresu bjectedto c ase-by-casestudy.Acareful com parisonisneed edfort het reatmentplanselection.