

Old versus new radiation techniques in treating synchronous bilateral breast cancer

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Prevalence of synchronous bilateral breast cancer (SBBC) is still scarce. No clear consensus to guide the specialists for best techniques to treat such complex target. Some of the Radiation oncologists believe that Tomotherapy is the best machine to handle this large volume, with its highest capacity in term of dose homogeneity and organ at risk avoidance. In General, IMRT and VMAT can deliver very precise and conformal treatment, far better than 3D-CRT. 3D-CRT with bi-tangential technique has some disadvantages such as heterogeneity; mainly at fields junction as well as hotspot can touch structures outside the

primary target. Due to the high precision of IMRT and VMAT delivery, little patient set-up changes or chest movement during breathing cycle may lead to miss the target. Until now, 3D-CRT considers an acceptable technique to treat SBBC in many cancer centers worldwide. We reviewed many articles stated various radiation techniques that treating SBBC to explore the possibility to overcome the disadvantages of new radiation techniques delivery, ending with possible 3D-CRT replacement.

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