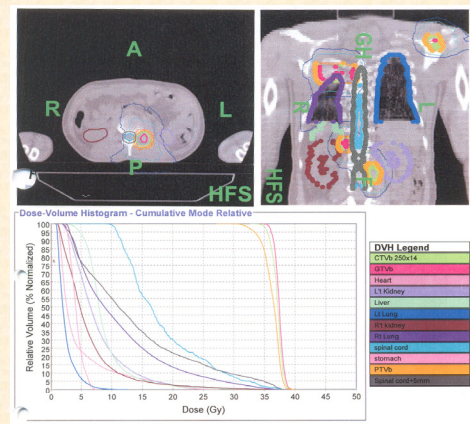
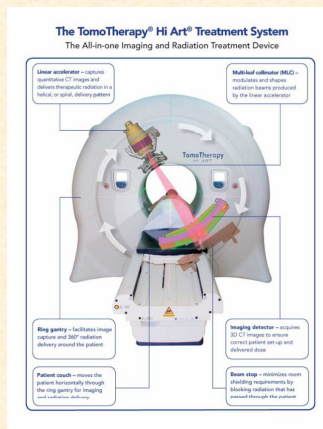
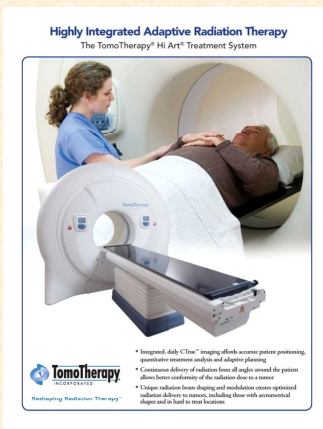


Title: Tomotherapy in Palliating Multiple Painful Bone Metastases from Hepatocellular carcinoma (HCC)

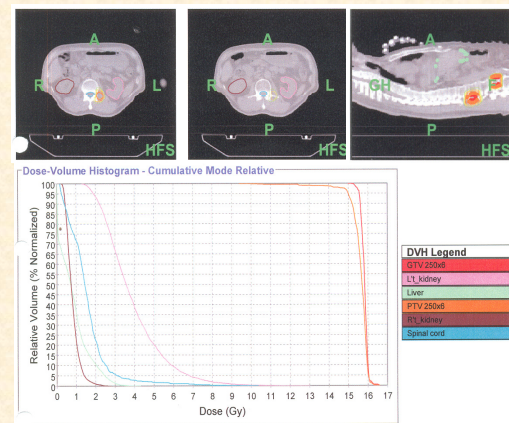
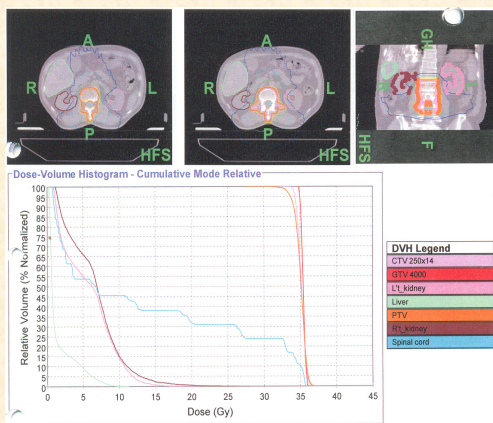
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Case 1 is a case of 39 year-old male patient with HCC s/p lobectomy with multiple painful bone metastases. He had ever received surgical resection of right 6th rib, but bone metastases progressed and pain got worse. He was referred to radiation oncology clinic for multiple bone pain. According to bone scan and physical examination, the pain attacked in 5 sites. Total doses of 3000cGy were delivered to these 5 bone metastases in 10 fractions by Tomotherapy and the degree of bone pain subsided. No more pain attacked at these irradiated sites for more than 13 months.



Case 2 is a case of 64 year-old male patient with HCC s/p TACE. Back pain occurred on May, 2008 and bone scan showed metastases at L1 and L3. Palliative radiation therapy by Tomotherapy was given to L3 since 2 Jun. 2008 to 19 Jun. 2008 with 3500cGy in 14 fractions and to L1 since 15 Aug. 2008 to 2 Sep. 2008 with 3000cGy in 10 fractions. The pain subsided. However, new painful metastases happened after 1 months in left neck, shoulder and left lesser trochanter of femur, which new bone metastases were suspected and bone scan confirmed this diagnosis. Then he received Tomotherapy to treated these three sites with total dose 3000cGy in 10 fractions since 17 Oct. 2008 to Nov, 7, 2008. No more pain attacked at these irradiated sites for more than 8 months. In the past 10 years, the incidence of bone metastases from HCC has increased because of the improved duration of control of the primary tumor site and improved imaging quality. Bone metastases from HCC rarely cause the patient's death, but bone metastases is a common cause of pain and other neurologic symptoms that involve quality of life. Radiotherapy is effective in palliating painful bone metastases, with partial pain relief reported in 80% to 90% of patients.



Tomotherapy is one method of radiotherapy, which is able to irradiate many tumors at one time. According to these two patients, although they suffered from multiple painful bone metastases, Tomotherapy could relieve bone pain without severe side effects by irradiating many tumors at one time. In addition, both of them had progression of disease, but Tomotherapy safely improves their quality of life instead of using analgesic drugs everyday.