Results: The median follow-up was 14.5 months. Most of patients received 30 Gy in 3 fractions, on alternative days: all the patients completed the prescribed SBRT treatment. Fifteen patients (71%) received androgen deprivation therapy concomitant to SBRT. SBRT was well tolerated: only 1 patient experienced grade 2 acute rectal toxicity but we did not observe any severe acute or late toxicity (≥3). Despite the short follow up, local control was 100%, distant control was 79% (6/21). All these recurrences were nodal and all out of SBRT field: in 2 of these 6 patients a new SBRT course was delivered (30 Gy in 3 fractions) while in the other hormonal therapy was proposed. At the moment of analysis, all patients were alive.

Conclusion: Our experience shows that SBRT for isolated nodal relapse from prostate cancer is a safe treatment, offering a low toxicity profile and an excellent tumor local control. More data and a longer follow up are needed.

EP-1364 Role of choline PET/CT in Cyberknife treatment planning for recurrent prostate cancer following EBRT
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Purpose or Objective: Most studies demonstrate that local salvage therapy after EBRT may provide long-term local control in appropriately selected pts, although toxicity is often significant. In these pts, PET/CT with [11C]choline may accurately detect the presence of recurrence. We investigated the role of [11C]choline PET/CT for target volume selection and delineation in pts with recurrent prostate cancer following EBRT for a salvage tailored Cyberknife Stereotactic Hypofractionated Radiotherapy (SBRT) treatment.

Material and Methods: From December 2012 to April 2015, 22 pts with initial disease category defined as low (2), intermediate (6) to high (14), in accordance with NCCN 2008 guidelines, median age of 74 years (range 62-89) and an history of locally recurrent prostate cancer following EBRT were referred to our Department for salvage Cyberknife SBRT. The diagnosis of a clinically evident recurrence of prostate cancer was based on biochemical progression and imaging studies. Median PSA was 22.7 ng/ml (range 4.9-88 ng/ml), EBRT doses ranged from 74 to 79.2 Gy (median 76 Gy) and the median interval time between relapse diagnosis and salvage Cyberknife treatment was 60 months (range 19-139). The relapse pre-reirradiation PSA was 4.64 ng/ml (range 2.23-13.04 ng/ml), CT scan and MRI with T1-T2 sequences were performed and [11C]choline PET/CT images were fused for prostate target volume delineation. 5 pts received 3 fractions of 10 Gy (total dose 30 Gy), 17 pts received 3 fractions of 12 Gy (total dose 36 Gy) delivered to the PET positive prostate node (median volume of 14.3 cc range 4.7-65.04) in the respect of organ at risk constraints.

Results: The treatment was well tolerated with no RTOG grade 3 acute or late toxicity. With a median follow up of 17 months (range 6-35) we observed the following results: no in field recurrence, with a local control of 100%. In 4 pts, respectively at 11, 14, 16 and 22 months after treatment (median time 15 Months), a [11C]choline PET/CT detected a local recurrence with the evidence of a new positive prostate node outside the irradiated field requiring a second Cyberknife SBRT salvage treatment.

Conclusion: Advances in modern imaging show promises in the management of prostate cancer at the different stage (diagnosis, treatment planning and follow up). According to available literature [11C]choline PET/CT is not clinically recommendable to plan target volume, nevertheless our promising data suggest a potential role of [11C]choline PET/CT as an image guide tool for the focal irradiation of prostate cancer relapse.