

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. Our cohort presented an excellent renal outcome after radiotherapy. A significant decrease in creatinine clearance has been observed in patients under four years of age when treated with radiotherapy. Nevertheless, the renal function always remained within the non-pathological physiological range, therefore this finding is not clinically relevant. Pathological values that suggest renal failure have not been obtained in any determination. No patient developed chronic renal dysfunction.

Poster (digital): Mixed sites/palliation

PO-1440 Multi-institutional review of SBRT for adrenal metastasis: Turkish Radiation Oncology Society Study

<u>A. Elmali</u>¹, B. Akkus Yildirim², M. Cengiz¹, S. Yuce Sari¹, H.C. Onal², T. Berber³, A. Arslantas Erken³, T. Zoto Mustafayev⁴, B. Atalar⁴, I. Unal⁵, N. Kaydihan⁶, F. Oner Dincbas⁶

¹Hacettepe University, Radiation Oncology, Ankara, Turkey; ²Baskent University, Radiation Oncology, Adana, Turkey; ³Prof. Dr. Cemil Tascioglu City Hospital, Radiation Oncology, Istanbul, Turkey; ⁴Acıbadem Maslak Hospital, Radiation Oncology, Istanbul, Turkey; ⁵Guven Hospital, Radiation Oncology, Ankara, Turkey; ⁶Memorial Bahcelievler Hospital, Radiation Oncology, Istanbul, Turkey

Purpose or Objective

The current literature on adrenal stereotactic body radiotherapy (SBRT) is still limited. The purpose of this study is to report the outcomes of SBRT for adrenal metastasis in a retrospective multi-institutional cohort.

Materials and Methods

The outcome of 124 patients with 146 adrenal metastases who underwent SBRT within 11 years (2008-2019) was evaluated. Survival outcomes were analyzed by the Kaplan-Meier method. Patient, tumor, and treatment characteristics and their effects on survival, local control, and toxicity outcomes were analyzed by Log-rank and multivariate Cox regression methods.

Results

The median age at treatment was 60 years. The most frequent primary tumor site was the lung followed by the gastrointestinal system and the breast. The adrenal gland was the only metastatic site in 49 patients (42%). The most common fractionation schedule was 30 Gy in 5 fractions. Median BED10 was 61 Gy. After a median follow-up of eight months, 24 local failures were observed, and the one- and two-year local recurrence-free survival rate was 79% and 69%, respectively. The median overall survival (OS) was 35 months, and the one- and two-year OS rate was 83% and 60%, respectively. The overall local control (LC) rate was 83% and it was positively correlated with the BED10 and fraction dose. An improved OS was observed in cases with non-lung cancer, <4 cm lesion, and isolated adrenal metastasis (Fig 1.) although the latter not statistically significant. Fourteen patients reported an acute toxicity and late toxicity was observed in three



Conclusion

A satisfactory LC rate was achieved for adrenal metastasis via SBRT with minimal toxicity. A higher BED10 and fraction dose are positive prognostic factors for tumor control.

PO-1441 Remote monitoring during radiotherapy - recruitment for an eHealth study under the Covid19 pandemic

H. Pappot¹, <u>C. Holländer-Mieritz²</u>, E.B. Steen-Olsen¹, A. Green³, C.A. Kristensen⁴, I.R. Vogelius⁵

¹Rigshospitalet, University Hospital of Copenhagen, Department of Oncology, Copenhagen, Denmark; ²Rigshospitalet; University Hospital of Copenhagen, Department of Oncology, Copenhagen, Denmark; ³The Capital Region of Denmark, Department of teleHealth, Copenhagen, Denmark; ⁴Rigshospitalet, University Hospital of Oncology, Department of Oncology, Copenhagen, Denmark; ⁵Rigshospitalet, university Hospital of Copenhagen, Department of Oncology, Copenhagen, Denmark; ⁵Rigshospitalet, university Hospital of Copenhagen, Department of Oncology, Copenhagen, Denmark

Purpose or Objective

During the Covid19 pandemic the health care sector has been using eHealth to a larger extend than earlier. There have been a renewed focus on how and where to use eHealth. Ongoing technological advances in wearable sensors allow for real-time collection of objective data. Consumer wearables can collect biometric sensor data, and a smartwatch allows for objective health data monitoring outside hospital with minimal effort for the patient. Patients with head and neck cancer (HNC) experience severe side effects during radiotherapy (RT). We hypothesize that smartwatches might be helpful tools to aid vulnerable HNC patients to better overcome a burdensome treatment such as RT. Before investigating the possible effect of optimizing the trajectory for HNC patients using smartwatches, we designed and performed a feasibility study. This is an evaluation of the recruitment in an RT eHealth study during the Covid19 pandemic.

Materials and Methods

In a prospective, single cohort trial conducted at Rigshospitalet, Department of Oncology, Denmark from January 22^{nd} to October 15th, 2021 screening-log and inclusion-log have been documented. Patients \geq 18 years planned to primary or post-operative curatively intended RT for HNC were eligible. Patients were primarily approached by nurses in the HNC outpatient clinic after a research assistant had screened the program for eligible patients. Consenting patients were asked to wear an Apple Watch continuously during RT and until 2 weeks after end of RT, in total 12-14 weeks. Demographic data, objective toxicity scores and hospitalizations were documented. Included patients borrowed a smartwatch and a smartphone. These hardware were set-up for the specific study solely and could not be used for private purposes.

Results

During nine-month recruitment period 64 patients, 50 men and 14 women aged 30-82 years, were screened for enrollment at Department of Oncology, Rigshospitalet, Copenhagen, Denmark. 37 of 64 patients were never asked due to the health care professionals' assessment and in 15/37 no reason for missing information to patients was recorded. Seven were included, 6 men and 1 woman aged 50-68 years. 20 out of 64 patients declined participation. 12/37 were not asked because of competing protocols. 4/64 patients had disseminated disease, not identified initially.

Conclusion

Aiming at performing a study to assess the feasibility of using the Apple Watch for home monitoring of patients with HNC during RT we experienced a very low recruitment-rate. Though remote monitoring intuitively may lead to early identification of symptoms and secure timely intervention for symptom management, neither HNC patients undergoing RT nor health care professionals seemed willing to be included or include patients in a feasibility study investigating the use of such a new eHealth tool during RT. Before implementing eHealth solutions, it seems important to investigate if these are warranted, feasible and acceptable by both patients and health care professionals.

PO-1442 Low-dose RT for benign musculoeskeletal disorders:clap your hands, stomp your feet, return to be fit!

<u>B. Álvarez</u>¹, Á. Montero², R.M. Alonso³, J.J. Valero¹, R. Ciérvide¹, M. López¹, L. Alonso⁴, E. Sánchez¹, M. García-Aranda¹, X. Chen³, O. Hernando³, C. Rubio¹

¹Hospital Universitario HM Sanchinarro. HM Hospitales, Radiation Oncology, Madrid, Spain; ²Hospital Universitario HM Sanchinarro. HM Hopsitales, Radiation Oncology, Madrid, Spain; ³Hospital Universitario HM Puerta del Sur. HM Hospitales, Radiation Oncology, Madrid, Spain; ⁴Hospital Universitario HM Sanchinarro. HM Hospitales, Medical Physics, Madrid, Spain

Purpose or Objective

Do you imagine having hands or feet pain every day? Inflammatory and degenerative musculoeskeletal disorders (MSD) of hand and feet are common causes of pain and functional disability in western countries and there is still no definitive cure. Herein, we present clinical outcomes of 127 with hand or feet degenerative/inflammatory disorders undergoing LDRT for symptomatic pain and functional relief.

Materials and Methods

Between April 2015 and August 2021, 127 patients (25 men and 102 women) with a median age 51 years-old were prospectively enrolled. (Table 1)