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Results

In total 2,350 patients were treated at our department during the 2nd pandemic wave (October 1 2020-February 28 2021), out of which 15 SARS-CoV2-positive cancer patients underwent RT in active phase of infection (Table 1). Three patients developed covid-related complications that needed longer interruption of RT, one of them was admitted to the ICU and later died from covid pneumonia. In 11 patients that were tested covid positive before the initiation of RT treatment was postponed (in average 12 days, range 7-28 days). No transmission of virus from infected patients to staff members were observed.

Table 1. Characteristics of SARS-CoV2-positive cancer patients that were irradiated in active phase of infection

Gender & Age	Diagnosis	PS WHO before RT	Irradiated site	RT intent	Fractionation	No. of fx before COVID+ test	Days of interruption due to COVID-19	of RT complete to d (yes/no)
M, 68	RCC, metastatic	3	Th8-9	palliative, urgent	1x3Gy 4x5Gy (instead of 10x3Gy)	+	12	Y
M, 66	vocal carcinoma	0	larynx	curative	29x2.25Gy	9	7	Y
M, 51	B-cell lymphoma	1	mediastinum	palliative, urgent	10x3Gy	3	0	N
F, 46	cervical cancer	1	pelvis	curative	25x1.8Gy	8	7	Y
F, 72	cervical cancer	1	pelvis	curative	25x1.8Gy	17	15	Y
M, 78	NSCLC	1	mediastinum	curative	32x2Gy	15	4	Y
M, 77	prostate cancer	2	pelvis	curative	38x2Gy	31	4	Y
M, 48	tongue cancer	0	oral cavity	postop.	30x2Gy	22	0	Y
M, 68	prostate cancer	1	pelvis	curative	38x2Gy	21	4	Y
M, 51	ureteral cancer, metastatic	3	L3-4	palliative, urgent	2x3Gy 4x5Gy	+	2	Y
M, 46	glioblastoma	3	CNS	postop.	30x2Gy	before 1st fx	0	Y
M, 64	SCLC, metastatic	1-2	CNS	palliative, urgent	5x4Gy	2	0	Y
F, 62	leiomyosarcoma, metastatic	2	Th9,11; L1-3; sternum	palliative, urgent	2x4Gy 1x6Gy	+	7	Y
M, 86	colon cancer, metastatic	1	lung	palliative, urgent	25x2Gy	10	18	Y
M, 30	diffuse astrocytoma	0	CNS	postop.	30x1.8Gy	5	2	ongoing

Conclusion

In our experience, with significant organisational effort, irradiation of a limited number of well selected SARS-CoV2-positive cancer patients is safe and manageable. Nevertheless, due to possible complications overall treatment time can be prolonged.

PO-1464 Impact of COVID-19 on Radiation Oncology, an Austrian Experience

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Purpose or Objective

The COVID-19 pandemic has an unprecedented impact on health care systems worldwide, with cancer patients representing a particularly vulnerable population. For these patients, timely diagnosis and immediate initiation of treatment is of utmost importance to ensure optimal outcome. We aimed to evaluate the effects

of the pandemic on the radiotherapeutic treatment of patients in order to provide data for future management of such crises.

Materials and Methods

In this retrospective single-centre study, we analysed the number of daily-performed radiation therapy sessions treated at the Department of Therapeutic Radiology and Oncology of the Medical University of Innsbruck, which is the sole provider of radiation therapy for the Tyrol region. Radiation therapy (RT) sessions performed in the pre-pandemic years of 2018 and 2019 were compared to the available period of the year 2020. We obtained data for all external beam RT sessions and courses performed in this period. All primary tumour entities were included. For comparison, independent samples t-tests were performed for each month.

Results

At our department, no referred patients had to be rejected or postponed, nor did we implement any significant changes in fractionation schedules. Nevertheless, there was a drop in overall radiotherapy sessions in the months of May to August (-25%, -30%, -23%, -15%), of breast cancer sessions from April to August (-16%, -17%, -38%, -43%, -27%), as well as prostate cancer sessions in April and May (-18%, -32%).

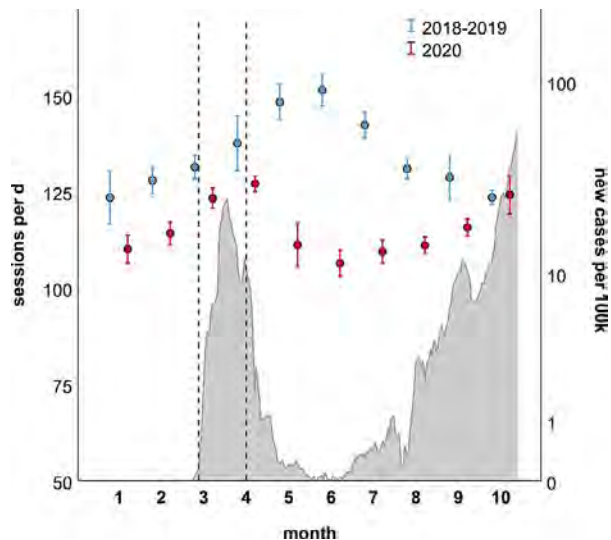


Figure: Mean count of total RT sessions per day over the course of the year 2020 compared to previous years. The time course of the pandemic in Tyrol is represented as an area plot of the 7-day average of new infections per 100,000 residents. The dotted lines indicate the start and the end of Austrian official lockdown measures.

Conclusion

Even though the severe impact of COVID-19 is reflected by a lower count of performed radiotherapy sessions, this effect is primarily related to delays in timely diagnosis and initial interdisciplinary co-treatment. Radiation oncology can serve as a crucial cornerstone in upholding both, curative treatment options and full capacity, when adhering to published recommendations for the pandemic management.

PO-1465 Is local ablative radiotherapy for liver malignancies an alternative to surgical resection?

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Purpose or Objective

In 2019, 2 retrospective analyzes of the morbidity after (1) complex visceral surgery (Baum 2019, Dtsch Arztebl Int) and (2) after liver surgery (Filmann 2019, Br J Surg) in the Departments of Surgery in Germany between 2009-2015 were carried out, based on hospital billing data. Against this background, the question of morbidity data for alternative non-invasive or minimally invasive, locally ablative procedures arises.

Materials and Methods

First, the specific morbidity and mortality data after liver surgery of the two above-mentioned papers (1 + 2) are listed. This is followed by the presentation of the results of a retrospective toxicity analysis (Mohnike, 2016 Strahl Onkol) (3) of a consecutive patient cohort (192 patients, 343 interstitial brachytherapies) with primary and secondary liver malignancies. These patients treated between 03/06 and 03 / 09 received interstitial HDR brachytherapy (iBT).

For this evaluation, the clinical and CT-/MRI-based follow-up observations were recorded every 3 months after treatment, the toxicity data were classified according to CTCAE vs3, and the local control rate was also calculated.

Results

(1) The rate of severe complications (≥ 3) after complex liver operations was 24.3%, the mortality rate 7.7% (18.849 cases).

(2) 75% of 110.332 patients received surgical procedures for a tumor disease of the liver, the proportion of colorectal carcinomas (CRC) and hepatocellular carcinomas (HCC) was over 50%. For the total cohort, the mortality rate was 5.8%; for the sub-cohort age > 69years: 16.8%.

(3) The largest proportion of liver malignancies were CRC- (43.8%) and breast cancer- metastases (6.7%), HCC (26%) and CCC (8.3%) lesions. Depending on the histology, a PTV-enclosing median dose of 15-25Gy was applied. Acute complications ≥ 3 (bleeding, ascites) occurred in 1.75% of the cases, chronic complications (GI