reduction of DNMT1 expression and a time dependent exposure increased expression of the GR isoforms, GRα and GR-P. These changes at the RNA level were not translated to the protein level. This was not due to excess GR protein being targeted for degradation as proteasome blockade did not affect GR protein levels. Unlike 5-aza treatment which caused a significant increase in the usage of specific GR promoters, genistein treatment did not show a significant increase in usage at 72h. The low concentrations of genistein used in this study induced apoptotic cell death in DMS79 cells. This induction was slightly influenced by co-treatment with RU486.

Conclusion: We, therefore conclude that genistein is able to epigenetically modulate GR expression at the mRNA level but not at the protein level. Genistein, at dietary concentrations, is able to induce apoptotic death in a cell line dependent manner, possibly through interaction with the GR.

Keywords: small cell lung cancer, apoptosis, glucocorticoid receptor, genistein

PUB057
Re-Irradiation of Non-Small Cell Lung Cell Cancer Recurrences with Stereotactic Body Radiotherapy

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Background: Decision of salvage therapy for lung cancer recurrences is a major problem because of poor results with re-treatments having greater risk of side-effects. Stereotactic body radiotherapy (SBRT) is a promising technique in re-irradiation of lung cancer recurrences. In this study, we intent to present our results, including the toxicity and outcome of our patients treated with SBRT after radiotherapy failure.

Methods: 403 patients were treated with SBRT for lung cancer at our department between June 2010 and August 2015. Among these, we identified 16 patients who were re-irradiated using SBRT. PET-CT was used in staging in all patients. All patients had recurrent disease only within the previous radiotherapy treatment volume. The median previous EBRT dose was 66 Gy (range, 46 - 66 Gy). Tumor responses were evaluated with PET-CT 3 months after SBRT and with computerized tomography (CT) every 3 months interval. Outcomes analyzed were $>$ grade 3 radiation pneumonitis, overall survival (OS), local control (LC), progression free survival (PFS) and distant metastasis.

Results: The median follow-up time was 30 months from salvage SBRT. The locations of recurrent tumors were central in 12 and peripheral in 4 patients. The median largest tumor size was 4.35 cm (range; 1.4 and 6.6 cm) and planning target volume was median 47.3 cm^3 (range; 5.4 and 153.4 cm^3). The median SBRT dose was 38 Gy (range; 30 $-$ 60Gy). Total biological equivalent dose (BED) was 63 Gy_{10} (range, 48 - 115 Gy_{10}) and SBRT was applied after a median time of 12 months (range; 3-36 months) from prior radiation. Complete response was in 13, partial response was in 2, stable or progressive disease was observed in 1 patient. The 1 year, 2 year and 3 year LC rate was 93.8%, 85.2% and 85.2% respectively. The 1 year, 2 year and 3 year OS rate was 87.5% - 67.3% and 40.4% respectively. One and 3-year PFS rates were 49.2% and 28.1% respectively. At the last follow-up 5 patients were alive with no evidence of disease and one patient was alive with systemic metastases. The rate of symptomatic $>$ grade 3 pneumonitis was 12.5 % and one patient developed fatal pneumonitis. Symptomatic $>$ grade 3 chest wall pain or esophagitis was not observed.

Conclusion: Salvage therapy with re-irradiation with SBRT technique for in-field recurrent lung tumors appears to be a effective and well-tolerated option for cautiously selected patients even centrally located. Our results suggest that, lower BED doses could still provide excellent LC for recurrent lung tumors in the previous RT field with an acceptable complication rate.

Keywords: Recurrent lung cancer, stereotactic body radiotherapy, SBRT

PUB058
Pulmonary Intestinal-Type Adenocarcinoma

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Background: Intestinal-type adenocarcinoma is a rare pulmonary cancer. Cystic change as image feature in lung cancer patients is also quite uncommon.