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.

Radiotherapy and Oncology xxx (xxxx) xxx

Contents lists available at ScienceDirect

Radiotherapy and Oncology

journal homepage: www.thegreenjournal.com

Letter to the Editor

Hypofractionated chemoradiotherapy for locally advanced non-small cell lung cancer: Is split-dose chemotherapy safer than full dose chemotherapy?

Dear Editor,

We read Glinski et al. [1] phase II study of accelerated hypofractionated radiotherapy with concurrent full dose chemotherapy for locally advanced non-small cell lung cancer with interest. 92 patients were treated with 58.8 Gy/21 fractions (2.8 Gy/fraction over 4 weeks) with two cycles of cisplatin 80 mg/m^2 on day 1 and day 22 and vinorelbine 25 mg/m^2 on days 1, 8, 22 and 29 of radiotherapy. Two patients could not complete radiotherapy and 24% patients could not receive second cycle of chemotherapy. Median progression-free survival (PFS) was 25 months (95% CI:14–36) and median overall survival (OS) was 38 months (95% CI:27–49). There were two toxic deaths within three months after treatment; one with fatal haemoptysis and one with complications of oesophageal toxicity. There were also five other deaths which occurred within one year post-treatment and these deaths were thought likely to be treatment-related: one with lung abscess, two fatal haemoptysis and two from undetermined cause. This made crude rate of 7.6% toxicity–associated deaths. The authors concluded that survival rates were encouraging but there were high rates of toxic deaths. Clearly, this regimen is toxic and gives a potentially false impression that concomitant hypofractionated chemoradiotherapy cannot be routinely delivered in clinical practice.

However, we recently published [2] our real-world experience of treating 100 patients with hypofractionated (55 Gy/20 fractions over 4 weeks, 2.75 Gy per fraction) concomitant chemoradiotherapy as SOCCAR regimen [3] (split course of concurrent chemotherapy: Cisplatin 20 mg/m^2 on days 1–4 and days 16–19 with vinorelbine 15 mg/m^2 on days 1, 6, 15 and 20). Four weeks after concomitant phase, two more cycles of cisplatin 80 mg/m^2 on day 1 and vinorelbine 25 mg/m^2 days 1 and 8 were given three-weeks apart). There was one toxic death and two patients developed grade 4 toxicities. Median PFS was 23.4 months and OS was 43.4 months. 73% of patients completed all four cycles of chemotherapy [2]. Both the SOCCAR original study and our real-world experience show that hypofractionated chemoradiotherapy is safe and yields good outcome. Possible factors leading to the above described regimen being too toxic could be either slightly higher dose of radiotherapy or the higher doses of chemotherapy; both studies used concurrent cisplatin cumulative doses of 160 mg/m^2 but it was split in our series and a cumulative dose of vinorelbine was significantly lower at 60 mg/m^2 in our series.

We are intrigued to know whether those seven patients with toxic deaths in Glinski et al study received all planned chemotherapy? We believe that the SOCCAR regimen remains safe and effective treatment option, and one which reduces treatment visits during the COVID-19 pandemic.

Conflict of interest

None.

Funding

None.

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Received 4 June 2020
Accepted 15 June 2020

Available online xxxx

https://doi.org/10.1016/j.radonc.2020.06.020