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Tumour regression grade (TRG) after neoadjuvant docetaxel, oxaliplatin, fluorouracil, and leucovorin (FLOT) in patients with resected gastric or gastro-oesophageal junction (GOJ) cancer can predict overall survival: results from a single UK centre

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Background: After neoadjuvant chemotherapy FLOT, patients who have resected gastric or GOJ cancers have variable prognoses. TRG may be prognostic of relapse-free survival (RFS) and overall survival (OS) and shed light on different approach to adjuvant treatment and surveillance.

Methods: We performed a retrospective analysis of consecutive patients with gastric / GOJ cancers who underwent curative surgery after neoadjuvant chemotherapy FLOT between July 2019 and December 2023.

Results: Of 55 patients who had received FLOT, 42 (76%) went on to have curative surgery. There were 39 men and 3 female. Their median age was 70 (interquartile range 61-73). 7 (16.7%) patients achieved MANDARD TRG 1 in the surgical specimen, 5 (11.9%) patients

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had TRG 2, 9(21.4%) patients had TRG 3, 16(38.1%) patients had TRG 4 and 5 (11.9%) patients had TRG 5.

After a mean follow up of 18 months, 11 patients have disease relapse and 8 patients have died. The 2-year RFS and OS were 60.5% (95% CI 39.9-81.1) and 77% (95% CI 59.8-94.2) respectively.

OS was significantly longer in patients who achieved a TRG 1-2 compared to those with TRG 3-5 (HR 0.18, p=0.019). There was also a trend toward better RFS among patients who achieved a TRG 1-2 (HR 0.48, p=0.148)

Among patients who have achieved TRG 1-2, their average exposure to chemotherapy tended to be higher (Docetaxel 86.3%, Oxaliplatin 86.3% and 5FU 84.2%) than those who have TRG 3-5 (Docetaxel 85.3%, Oxaliplatin 85.3% and 5FU 81.7%) though these differences did not reach statistical significance. 7 patents with TRG 3-5 also received postoperative radiotherapy with chemotherapy (concurrent carboplatin and paclitaxel in 4 patients).

Conclusion: Our local experience with FLOT is consistent with the original German report in terms of the pathological response and survival. Our results also show that MANDARD TRG can be prognostic for OS and perhaps RFS, and therefore can help patients to decide adjuvant options such as radiotherapy, alternative chemotherapy and surveillance. Although there may be a dose-response relationship, keeping chemotherapy dose-intensity above 80% does not affect the TRG.

Figure 1

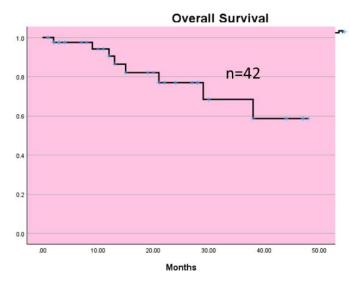


Figure 2



Figure 3



Figure 4.

