Overall Survival among Cancer Patients Undergoing Opioid Rotation to Methadone Compared to Other Opioids

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Abstract
Background: Methadone has been associated with lower overall survival (OS) in patients with chronic pain. There are no data available on the association of methadone with OS in cancer patients.
Objective: Our aim was to compare the OS in cancer outpatients undergoing opioid rotation (OR) to methadone and other strong opioids.
Design: Demographics, symptoms, and morphine equivalent daily dose (MEDD) were collected in patients who underwent OR from strong opioids to either methadone or other strong opioids and returned for a follow-up within six weeks.
Setting/Subjects: Nine hundred thirty-eight consecutive outpatients to the supportive care center of a tertiary cancer center were reviewed.
Measurements: Kaplan–Meier curves were used to evaluate survival.
Results: Of a total of 164 eligible patients, 54/76 patients who underwent OR to methadone and 48/88 patients who underwent OR to other opioids returned for a follow-up visit. The median age was 56 years, 54% were male, and 87% had advanced cancer. There were no significant differences between the two groups in patient characteristics, performance status, MEDD, and pain scores. The Kaplan–Meier curves revealed no significant difference in median OS between all patients undergoing OR to methadone and other opioids [3.75 months (95% confidence interval, CI, 2.30–6.46) vs. 2.62 months (95% CI 1.74–4.33); p = 0.35] and also among those who returned for a follow-up following an OR to methadone and other opioids [5.15 months (95% CI 3.64–7.41) vs. 5.90 months (95% CI 2.62–9.28); p = 0.89].
Conclusions: We observed no significant difference in OS in cancer patients in methadone group compared to other opioids.

Strengths of study
The authors claim this is the first study to investigate if methadone is associated with lower survival in cancer patients and there was no industry funding. Methods used and statistical analysis seemed appropriate. There were no significant differences between the methadone and other opioid groups.

Weaknesses of study
The authors admit to a limited sample size, and a retrospective design. A larger trial, preferably with a prospective design is required to validate these results. This study was an ad hoc analysis of a data set obtained for a previous study.

Relevance to palliative care
Methadone is frequently used on the TPCU as well as in the outpatient setting to control pain for patients with cancer. While effective as an analgesic, its adverse effects are frequently a cause for concern, particularly potential drug interactions and potential prolongation of the QTc interval which is of greater concern in high doses. This study suggest that, in the dose ranges observed, methadone does not appear to alter the overall survival of cancer patients. Future studies using higher doses of methadone as well as an analysis of concomitant use other QTc prolonging agents would provide more valuable evidence regarding methadone safety.