

Journal Watch

Title: Changes of QTc interval after opioid switching to oral methadone

Authors: Sebastiano Mercadante & Giovanna Prestia & Claudio Adile & Alessandra Casuccio

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Prepared by: Dr Vincent Thai

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Abstract: Abstract A consecutive sample of patients who were switched from strong opioids to methadone in a period of 1 year was surveyed. QTc was assessed before switching (T0) and after achieving adequate analgesia and an acceptable level of adverse effects (Ts). Twenty-eight of 33 patients were switched to methadone successfully. The mean initial methadone doses at T0 were 67.1 mg/day (SD \pm 80.2, range 12– 390). The mean QTc interval at T0 was 400 ms (SD \pm 30, range 330–450). The mean QTc interval at Ts (median 5 days) was 430 ms (SD \pm 26, range 390–500). The difference (7.7 %) was significant ($p < 0.0005$). Only two patients had a QTc of 500 ms. No serious arrhythmia was observed. At the linear regression analysis, there was no significant association between mean opioid doses expressed as oral morphine equivalents and QTc at T0 ($p = 0.428$), nor between mean methadone doses and QTc at Ts ($p = 0.315$). No age differences were found with previous opioid doses ($p = 0.917$), methadone doses ($p = 0.613$), QTc at T0 ($p = 0.173$), QTc at Ts ($p = 0.297$), and final opioid–methadone conversion ratio ($p = 0.064$). While methadone used for opioids switching seems to be an optimal choice to improve the opioid response in patients poorly responsive to the previous opioid, the possible QTc prolongation should be of concern despite not producing clinical consequences in this group of patients. A larger number of patients should be assessed to quantify the risk of serious arrhythmia.

Keywords Cancer pain . Methadone . QT prolongation .

Comments:

Strengths/ uniqueness:

Interesting, useful study looking at a current topic on prolongation of QT interval by methadone.

Prospective study as well over a 1 year period and seems to indicate that despite the QT prolongation, there had not been any clinically relevant arrhythmias.

It is important to know, based on this study, the QT prolongation is not related to the morphine doses nor the methadone doses nor the age or the opioid ratio.

Weaknesses :

Small number of patients,

There was no mention of final methadone doses at stabilization of the pain.

Paper could have been clearer with some tables and figures.

No information on baseline electrolyte levels of these patients.

It would also be more interesting if there had been repeated ECGs done at 3 monthly or 6 monthly intervals to see how consistent the prolonged QT interval was.

Relevance to Palliative Care: Important topic as methadone is used in many palliative care programs. Moreover, there are many medications that can contribute to prolong QT e.g. atypical anti-psychotics like Seroquel. The important question would be the actual risk of a clinically relevant arrhythmia. Informed consent based on risk versus benefit ratio will be helpful.