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Pain management for up to 9 weeks medical abortion – An international survey among abortion providers

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ABSTRACT

Objectives: although some degree of pain is inevitable with first trimester medical abortion, little information is available regarding its management in daily practice. The aim of the work was to determine the current regimens in use for managing pain associated with medical abortion.
Study design: a self-administered internet survey, developed by a group of European experts on medical abortion, was circulated internationally among medical abortion providers.
Results: A total of 283 valid questionnaires were completed, mainly from European providers (59% of respondents, n = 167). Most respondents (n = 267, 94%) reported analgesic prescription/provision for all women, either prophylaxic for 82% (n = 233) or upon request for 12% (n = 34). WHO Step I analgesics (NSAIDs, paracetamol) were the most often used in both cases. A total of 16 (6%) respondents indicated that they never provided analgesics (or prescriptions for them). Female providers of abortion care were significantly more likely to prescribe systematic analgesia for patients than male providers (85% vs 74%, $p < 0.04$). The majority of respondents (69%, n = 195) did not conduct formal assessments of women's pain.
Conclusion: Most providers do provide analgesia routinely to women undergoing medical abortion up to 9 weeks gestation. There were widespread variations in analgesic regimens used. There is a clear need for standardised evidence based regimens for management of pain associated with first trimester medical abortion.

Introduction

The combination of mifepristone and a prostaglandin analogue is now established as the most efficacious regimen for first trimester medical abortion. However, as medical abortion induces uterine contraction, it is associated with pelvic cramping pain [1,2]. Mifepristone increases uterine contractility and sensitizes the myometrium to prostaglandins [3] Prostaglandin analogues given following pre-treatment with mifepristone are significantly more effective at inducing uterine contractions leading to expulsion of pregnancy than prostaglandins alone [4,5].

Most recent guidelines from National and International Societies give a general recommendation for routine use of pain medication [1,2,6,7,8,9], but most often do not specify any particular analgesic drug and/or doses. Furthermore, there is little information available regarding the efficacy of analgesic protocols that are used in clinical practice to prevent and/or treat pain occurring during first trimester medical abortion.

In addition, guidelines from the World Health Organisation (WHO), advise that it is considered good clinical practice for pain management in general, to routinely measure individual pain level [10]. According to WHO guidelines on pain management, assessment should be done in all cases of pain. WHO advise that initial evaluation and ongoing reassessment are necessary and that a robust pain assessment is imperative to ensure that patients receive safe and effective pain management that is tailored to their

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needs [10]. Despite this general recommendation, WHO did not provide any specific recommendation regarding pain measurement of women during first trimester medical abortion. Moreover, there is a paucity of data on pain measurement during medical abortion from published clinical trials [11].

Therefore, it was decided to perform an international survey among medical abortion providers to document the current clinical practice for managing pain in first trimester medical abortion.

Methods

A questionnaire was developed by a group of experienced abortion providers from eight different European countries. This questionnaire included questions regarding the provider's service and his/her practice, and usual pain management. It was a multiple-choice questionnaire, including 21 questions (suppelmentary file). It was made available to health care providers offering medical abortion worldwide. The survey was announced to reproductive health care providers during the congress of the International Association of Health Care Professionals working in Abortion Care (FIAPAC) which took place in Ljubljana, Slovenia on 3.–4.th of October 2014, and through a dedicated FIAPAC emailing to members. A total of 425 health care professionals worldwide were invited to complete the survey. The questionnaire was completed online and was accessible during 2 months, October and November 2014 through a FIAPAC dedicated website. It was a self-administered anonymous survey.

Statistical analyses were performed on the analysis population, and provided number and percent of the different response modalities for the qualitative variables. All summaries and statistical analyses were generated using Statistical Analysis Software (SAS®) version 9.3, manufactured by SAS institute (USA). Comparisons between subgroups were performed using chi-squared tests or a Fisher exact test, according to the number of subjects. Statistical significance was assumed as a p value of $p < 0.05$.

Results

In total 425 providers were invited by email to complete the survey, 362 completed the questionnaires (85%); out of them, 79 (22%) were considered as not evaluable (77 because of missing data, 2 because the respondents were not directly involved in clinical care of patients). The analysis was based on the remaining 283 questionnaires.

Most respondents were from European countries (59%), 19% were from the US, the remaining from other parts of the world (Supplementary Fig. S1).

The majority of respondents were women (n = 213, 75%), were between 40 and 60 years old (n = 163, 58%), and were physicians (n = 213, 75%). Respondents' experience with medical abortion was less than 10 years in 48% of cases (n = 135). 41% of respondents had treated more than 100 women for first trimester medical termination of pregnancy during the previous year (Supplementary Table S1).

Most respondents reported analgesic prescription for all women (n = 267, 94%) and the majority even gave analgesics before pain onset (n = 233, 82%), but 6% (n = 16) of respondents reported that they never provided analgesia (Supplementary Table S2). For those who gave systematic analgesics, WHO-Step I analgesics (NSAIDs, paracetamol) were most often prescribed (n = 226, 97%). It was initiated shortly before or after misoprostol intake by 89.5% (n = 205) of respondents and the median treatment duration was 2 days [1–20 days]. Among the systematic prophylaxis prescribers who provided a response, 73.5% (n = 169/230) reported additional prescription or provision of analgesics upon request.

The impact of gestational age and place of misoprostol intake, i.e. home administration or hospital administration) on analgesic prescription was also explored. A total of 84% (n = 220) respondents reported they did not change pain management with gestational age, and 67% (n = 173) reported no change according to the place of misoprostol administration.

Female providers of abortion significantly more often prescribed systematic pain medication than men (85% vs 74%, $p < 0.04$). No other association (analyses by region, by age, by kind of practice, by number of years of experience, by number of treated women) was found regarding respondents' characteristics (Supplementary Fig. S2).

The majority of respondents (n = 173, 68%), did not routinely assess pain. The analyses did not find any differences between those who assessed pain and those who did not. For the respondents who routinely assessed pain, Visual Analogue Scale (VAS) was the most commonly used tool (n = 46, 58%).

Comment

In this web-based survey among medical abortion health care providers, nearly 20% reported to not routinely prescribe analgesics before onset of pain, and 6% do not prescribe analgesia at all. This corresponds with findings of observational studies among patients who had a medical abortion, where 6%-15% were not provided with any analgesics [12,13]. These figures may be considered surprising given the frequent occurrence of pain during medical abortion [1,2,3]. The high percentage of women experiencing pain was also found in other studies. Two recent observational studies in France found that 80%–83% of women reported pain during medical abortion (VAS $\geq$2) [13], and severe pain (VAS >6) was reported by 54% of patients [12]. In a prospective, open-label study performed in the USA, 90% of 376 women who underwent early medical abortion ($\leq$9 weeks) reported pain [14]. In a large study performed in Vietnam, 80% of 2400 women undergoing early medical abortion (up to 56 days) reported pain [15] Therefore, systematic prophylaxis is recommended in National and International Guidelines as the French Health Authorities (HAS 2010) [1], the UK Royal College of Obstetricians and Gynaecologists (RCOG 2015) [6], the French national college of obstetricians and gynecologists (CNGOF 2016) [7], the International Federation of Gynecology and Obstetrics (FIGO 2011) [2], and the World Health Organisation (WHO 2014) [9], while only as-needed analgesics are considered as more efficient by the Executive and Board of the Society of Obstetricians and Gynaecologists of Canada [8]. In our survey, significantly more female than male providers systematically prescribed analgesics. It has previously been reported that gender of health care providers influences pain management in various disease areas [16,17], and the rate of hysterectomies [18]. But no information could be found in the literature regarding differences in abortion pain management related to health care professional gender.

In our survey, WHO-step 1 analgesics (NSAID and paracetamol) are reported to be, by far, the most often prescribed drugs, for both systematic prophylaxis and for analgesia upon request. WHO developed in 1986 a 3-step model to guide the management of pain, with step 1 analgesics dedicated to mild pain, step 2 to moderate pain and step 3 to severe pain [19]. The appropriateness of paracetamol alone for pain caused by uterine contractions is questionable [8]. However, the level of pain reported during medical abortion varies between individuals depending on factors as medical abortion regimen used (dose of mifepristone and dose of prostaglandin with higher pain associated with lower mifepristone dose and higher total misoprostol dose), patient's age, parity,