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Original Article

Evaluation of adherence to French clinical practice guidelines in the management of pregnancy loss issued by the French College of Obstetricians and Gynecologists, one year after publication: A vignette-based study

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ABSTRACT

Objectives. – To assess the adhesion of French obstetricians and gynecologists to the French clinical practice guidelines for pregnancy loss, issued by the French College of Obstetricians and Gynecologists, one year after publication.
Methods. – An online vignette-based study was emailed to a sample of French obstetricians and gynecologists to compare their management of women with missed early miscarriage and incomplete early miscarriage. A descriptive statistical analysis was performed comparing the rates of appropriate management for these two indications before and after the release of the guidelines.
Results. – Of the 404 specialists contacted, 143 completed the questionnaire. Forty-three percent stated that they had changed their practices following the release of the guidelines. The rate of adhesion was moderate for the management of missed early miscarriage (53% after publication of the guidelines versus 42% before, $P = 0.001$) with a trend to avoid watching-and-waiting management. The rate of adhesion was poor for the management of incomplete early miscarriage (43% after the publication of the guidelines versus 27% before, $P < 0.001$) with a lower use of misoprostol.
Conclusion. – Adhesion to the French guidelines appears to be moderate for the management of missed early miscarriage and low for the management of incomplete early miscarriage.

Introduction

The management of pregnancy loss in the first trimester is a significant part of the activity of obstetricians/gynecologists, and particularly consultations for gynecological emergencies. It is the most common complication of pregnancies, with an estimated incidence of approximately 12% [1].

The French College of Obstetrician Gynecologists (CNGOF) published recommendations for clinical practice (RCP) for the management of pregnancy loss in 2014 [2]. Previously, the term pregnancy loss grouped missed early miscarriage and incomplete early miscarriage. Three alternative therapeutic treatments were used for both situations: misoprostol, watching-and-waiting, and surgical treatment by aspiration [3,4].

The RCP introduced precise definitions for types of fetal loss, including definitions of missed early miscarriage and incomplete early miscarriage, to standardize practice. Missed early miscarriage is defined as the arrest of development (stagnation of the size of the gestational sac and/or cranio-caudal length and/or the disappearance of cardiac activity) before 14 weeks of amenorrhea. Incomplete early miscarriage is defined as an early miscarriage with persistent intrauterine material on ultrasound. Two decision algorithms for determining uterine vacuity are recommended. In the event of a missed early miscarriage, the two recommended treatment options are surgical aspiration or misoprostol medication, as watching-and-waiting is not recommended. In cases of

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incomplete early miscarriage, the two recommended treatment options are surgical aspiration or watching-and-waiting, and misoprostol is not recommended.

The adherence of French obstetricians/gynecologists to these national recommendations in their daily practice has not been evaluated. Thus, the objective of this study was to assess the adherence of French obstetricians/gynecologists to the RCP of pregnancy loss one year after their publication.

Materials and methods

This study was a survey of professional practices in the form of a questionnaire sent by email on January 25, 2016 to French obstetricians/gynecologists who were on a national mailing list. A reminder was sent one month later. The inclusion criteria were: being an obstetrician/gynecologist and working in France.

The questionnaire was anonymous. Practitioners responded concerning their type of practice (university hospital, regional hospital, or private practice), their field of specialization (gynecological surgery, obstetrics, mixed activity, medical gynecology, or medically-assisted procreation), and the year they obtained their medical qualification. The number of years of professional experience was calculated based on the year of their medical qualification and classified into five categories:

- less than five years;
- between 6 and 10 years;
- between 11 and 20 years;
- between 21 and 30 years;
- more than 31 years of experience.

The questionnaire focused on the RCP chapter on ensuring uterine vacuity following a first-trimester pregnancy loss [5]. We used clinical vignettes [6] to evaluate the professional practices of the obstetricians/gynecologists. A review of the literature showed that there were no clinical vignettes related to the management of pregnancy loss in the first trimester.

We thus constructed two clinical vignettes with an unequivocal diagnosis according to the 2014 RCP: incomplete early miscarriage and missed early miscarriage. We created two vignettes for each of these two situations: one in 2012, before the RCP and one in 2016, after the RCP. Each vignette indicated that the patient had no allergy or comorbidity and that this was the first loss of a first-trimester pregnancy in a primigravida nulliparous patient (Appendix 1). The doctors stated whether they felt they had changed their practices since the release of the RCP.

For each vignette, the responding physician selected the intended medico-surgical management from among watching-and-waiting, misoprostol, endo-uterine aspiration, and operative hysteroscopy. For misoprostol, the dose, route, and duration of administration were specified. When aspiration was chosen, the physician indicated whether or not the aspiration product was sent out for analysis.

The primary outcome measure was the percentage of responses conforming to the RCP before and after 2014. A proposal to treat the patient by aspiration and/or misoprostol for missed miscarriage early and surgical treatment and/or watching-and-waiting for incomplete early miscarriage conformed to the RCP and were scored as correct.

Secondary outcome measures focused on three points in the RCP:

- the avoidance of watching-and-waiting for the management of missed early miscarriage;
- the non-use of misoprostol for the treatment of incomplete early miscarriage;
- the prescribing modalities of misoprostol.

The rate of watching-and-waiting for the management of missed early miscarriage, the use of misoprostol for the management of incomplete early miscarriage, and the number of correct prescriptions of misoprostol before and after 2014 were compared. We also investigated the rate of pathology analysis of the aspiration products.

We analyzed the influence of the type of practice and work experience on adhesion to the RCP. The management of missed early miscarriage and incomplete early miscarriage according to type of practice and the amount of experience were compared before and after the release of the RCP. We also analyzed the correct management of missed early miscarriage and incomplete early miscarriage.

We performed a matched descriptive statistical analysis for each vignette using R statistical software: we compared ordinal variables before and after RCP using the McNemar test and the means using the nonparametric Mann Whitney test. A P value < 0.05 was considered to be significant.

Results

An email was sent to 404 obstetricians/gynecologists working in metropolitan France and Réunion. The response rate was 35.4%. The main demographic characteristics are presented in Table 1.

Among the responding practitioners, 43% reported that they had changed their practices in the management of pregnancy loss since the RCP were issued in 2014. Self-reported adherence to the RCP for the management of missed early miscarriage is summarized in Table 2 and that for incomplete early miscarriage in Table 3.

There was moderate adherence to the RCP for the management of missed early miscarriage (53% correct cases) by responding practitioners as a whole. There was a significant difference before and after the publication of the RCP ($P = 0.01$). Adhesion to the RPC was better in the subgroup of practitioners reporting a change in their practices, with 72% reporting correct management of the cases versus 46% before the release of the RCP; this change was significant ($P = 0.001$).

Table 1
Demographic characteristics of responding obstetricians/gynecologists.

Demographic characteristics	Total responders ($n = 143$)
Years of experience	
1 to 5 years, *n* (%)	33 (23.1%)
6 to 10 years, *n* (%)	25 (17.4%)
11 to 20 years, *n* (%)	26 (18.2%)
21 to 30 years, *n* (%)	30 (21.0%)
> 31 years, *n* (%)	29 (20.3%)
Specialty	
Surgical gynecology, *n* (%)	60 (42%)
Obstetrics, *n* (%)	16 (11%)
Mixed activity, *n* (%)	56 (39%)
Medically-assisted procreation, *n* (%)	10 (7%)
Medical gynecology, *n* (%)	1 (1%)
Type medical practice	
University hospital, *n* (%)	52 (36.3%)
Regional hospital, *n* (%)	45 (31.5%)
Private practice, *n* (%)	46 (32.2%)
Distribution of hospital practitioners by status	
University professor or associate professor (*n*/*N* [%])	10/97 (10%)
Hospital practitioner [*n*/*N* (%)]	62/97 (64%)
Specialized assistant or hospital clinical head (*n*/*N* [%])	25/97 (26%)