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Medical versus surgical abortion: the importance of women's choice

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Abstract

Background—Using a large national sample of women undergoing an abortion in France, we explore the factors associated with medical or surgical abortion. We draw particular attention to the influence of women's preferences in the decision making process.

Study design—The data are drawn from a nationally representative survey of 8,245 women undergoing an elective abortion in France in 2007. Analyses of factors associated with the type of abortion technique were performed among the 4,650 women who were identified as being eligible for the two techniques.

Results—Sixty-seven percent of all abortions were medical procedures among women eligible for both techniques. The type of abortion technique was not dependent on women's age, parity, cohabitation status, socioeconomic circumstances nor on the type of facility providing the abortion (private or public). Conversely, women's participation in the decision making process was strongly associated with the type of abortion method. Among the 50% of women who reported they had been given a choice, 84% underwent a medical procedure versus 52% of those who were not offered a choice. Among the 2,286 women who were not involved in the decision, 35% indicated they trusted their doctor to make the best choice for them, while 44% were told it was too late for a medical procedure, although they had consulted before 8 weeks of amenorrhea.

Conclusion—In this sample of French women who participated in a national survey on abortion, those who were involved in the decision making process as to whether to have a medical or surgical procedure showed a strong preference for the medical procedure.

Keywords

Induced abortion; medical abortion; surgical abortion; Frances; shared decision making

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1. Introduction

With an annual incidence rate of 14.7 per 1000 women, elective abortion is a common reproductive health event in France, comprising more than 210,000 procedures each year [1]. An estimated 40% of women will undergo an abortion in the course of their reproductive life [2], which led the French Inspection Generale des Affaires Sociales to conclude that “abortion is a structural component of sexual and reproductive life and should be considered as such” in a recent report on abortions in France delivered to the French government [3]. The report also acknowledges the dramatic changes in the patterns of care for first trimester abortions in the last two decades due to the introduction of medical abortion and to recent changes in the French law voted in 2001, regulating the procedure. France was pioneer in approving mifepristone, used for medical abortion in 1988. Since then, medical abortion has gone from being a relatively uncommon procedure (representing only 16% of abortions in 1995) to a well-accepted technique for first trimester abortions, accounting for half of abortions performed in France in 2007 [1]. The 2001 abortion law also opened new patterns of access to medical abortion, by authorizing the procedure, once performed only in hospitals, to be carried out in private practices under certain conditions (physicians are required to sign a contract with abortion facilities). Medical abortions in private offices, performed since 2004, comprised 9% of all abortions in France in 2007 [1].

Today, women seeking an elective abortion in France can theoretically chose between medical and surgical options before 8 weeks of amenorrhea (49 days). However, in the context of expanding access to medical abortion, very little is known about the determinants of method choice for early terminations. Previous research, based on clinical trials involving few health care settings, has reported sociodemographic differences in choice of abortion techniques [4,5] as well as differences in level of satisfaction depending on women’s involvement in the decision of abortion methods [5-7]. Using a large national random sample of women undergoing an abortion, we explore the factors associated with the type of abortion technique in France. We draw particular attention to the influence of women’s preferences in the decision making process.

2. Materials and methods

The data for this study are drawn from a nationally representative survey of 8,245 women aged 13 to 50 years old undergoing an elective abortion in France in 2007. The sample was selected using a multi-step procedure, which consisted of first selecting a probability sample of 184 public or private hospitals, after stratification by region and by facility caseload. The facilities enrolled all physicians and midwives providing abortions in their facility or clinicians affiliated with the hospital providing medical abortions in their private offices (surgical procedures can be performed only in hospitals in France). The providers enrolled all the women they saw for an abortion during the study period (one to two months depending on women’s age and geographical location) after obtaining their informed consent. The 7,799 hospital-based abortions were carried out in 184 different hospitals for which it was estimated that a total of 11,781 abortions were completed during the study period. Thus, an estimated 66% of the hospital-based abortions performed are represented in the dataset.

Each woman was assigned a sampling weight that was inversely proportional to the probability of the facility being selected in the sample and to the duration of the study period. The facility-level weights were adjusted for the non-responding facilities according to their geographical location, caseload and public or private status. A further adjustment was introduced to reflect the characteristics of women undergoing an abortion in France (age, abortion technique and type of facility) based on national abortion statistics provided

by hospital records. All analyses are weighted to take the complex sampling design into account.

2.1. Study population

From the initial sample of 8,245 women, we excluded women if they reported their pregnancy was terminated for medical reasons ($n=192$) or if the abortion technique was unknown ($n=67$). Medical abortions in France are theoretically limited to early pregnancies less than 8 weeks of amenorrhea. We thus excluded women for whom the date of first contact with a health professional was not available if gestational age at the time of the abortion was greater than 8 weeks of amenorrhea (23% of women, $n=1,918$). We also excluded women whose first contact with a health care professional occurred after 7 weeks of amenorrhea ($n=1,418$). Thirty-four percent of the 1918 women with missing information on eligibility for both techniques reported they had been given a choice of methods and 42% underwent a medical procedure. However, we did not include these women in the analysis because they may have undergone the abortion after the authorized gestational limit for medical abortion. Our final study population comprised 4,650 women. These women eligible for both techniques represent 76.6% of women for which data on the date of first medical contact was available. In France, an 8-day waiting period is mandatory between first contact and the day of the procedure, which may result in a fraction of women consulting at 7 weeks of amenorrhea (who comprise 17% of the study sample) who are denied access to medical abortion. In order to account for this legal constraint, we performed a sub-analysis of women who first consulted before 7 weeks or had their abortion before 8 weeks of amenorrhea, to assess the possible effect of mandatory waiting period on women's choices of abortion technique.

2.2. Questionnaire

This multi-thematic study was designed to explore the sociodemographic characteristics of women undergoing an abortion, their use of contraception before and after the procedure and the patterns of access and care for abortions in France. Data were collected at the time of the abortion (the day of the surgical procedure or the day they received mifepristone, for those who had a medical abortion) by means of two questionnaires. The health care professional who performed the abortion during the study period, provided medical information on women's medical and reproductive histories, on the gestational age at the time of the abortion and the type of procedure. Women provided information on their sociodemographic background, their use of contraception at the time of conception and the patterns of access to the health care facility providing the abortion (date and type of first medical professional contacted, number of other professionals contacted...) and their involvement in the decision about the abortion technique. They were asked if they were given a choice of the abortion technique (surgical or medical) and the reasons why they were not in case they had no choice. The women could check one or several of the following reasons: the gestational age of the pregnancy gave no choice; you preferred the doctor to make the best decision for you; they did not ask you for your opinion; only one method was offered in the facility; other reasons. The questionnaires completed by the women and the health care professionals were related by a common anonymous identifying number in order to link the medical and sociodemographic information for an individual woman.

2.3. Analysis

We first examined the sociodemographic (age, parity, level of education, health insurance status, cohabitating status, professional situation) and medical information (gestational age, history of induced abortion, type of first medical contact and type of health care facility) associated with the type of abortion technique.

We then examined the influence of women's choice on the type of abortion procedure and the reasons why they were not given a choice, despite being eligible for both techniques.

3. Results

Two thirds of women (68%) had a medical procedure among those who were eligible for the two techniques. This proportion rose to 75% among women who first consulted before 7 weeks of amenorrhea. The type of abortion procedure was not dependent on women's sociodemographic characteristics (Table 1). Likewise, the type of health care provider women first contacted in the process of obtaining an abortion had no influence on the type of abortion technique. Conversely, gestational age at first contact was highly predictive of method type (Table 1). The earlier women contacted a health care provider, the more likely they were to have a medical abortion. Women who were not using contraception at the time they became pregnant were more likely to have a surgical procedure. However, the association was no longer significant once controlling for gestational age at first contact.

The type of abortion procedure was highly dependent on women's choice. Half of the women (50%) who had first contacted a health professional before 8 weeks of amenorrhea reported they had been given the choice of the abortion technique. This proportion increased by only 4-percentage points among women who had first contacted a health professional before 7 weeks of amenorrhea (54% of these women reported they had been given a choice of abortion methods). Women who were given a choice were 4.6 [95% CI: 3.4-6.1] times as likely to choose a medical procedure than women who were not given a choice (after controlling for age, previous abortion history, type of health insurance, gestational age at first contact and contraception at the time of conception): 84% had undergone a medical procedure versus 52% of those who reported they had not been given a choice ($p<0.0001$). The differential in favor of medical abortion among women who participated in the choice of abortion technique compared with those who were not involved in the decision making process grew from 18-percentage points when women first consulted before 6 weeks of amenorrhea to 48-percentage points when they first consulted at 7 weeks of amenorrhea (Table 2). The same analysis conducted among women who first consulted before 7 weeks shows similar results: 86% of those who were involved in the choice opted for the medical procedure *versus* 62% of those who were not offered a choice. Opting for a community based abortion (only allowed since 2004) may increase women's willingness to have a medical procedure. However, when we only considered hospital based abortions (91% of our study population), we found that among the 47.5% of these women who felt they had been given a choice of technique, 81% opted for a medical procedure *versus* 49.1% of those who reported having no choice. Women were more likely to have been given a choice if they had their abortion in a private office (74%) than if they had the abortion in a public or private hospital (48% and 43%, respectively; $p<0.001$). They were also more likely to have participated in the decision about the abortion technique if they had first contacted a health care professional early in the process: 57% had a choice if they had first contacted a professional before 6 weeks of amenorrhea, 50% if the first contact was at 6 weeks and 30% if the first contact was at 7 weeks of amenorrhea; $p<0.0001$. Among the 2,286 women who reported they had not been given a choice, 44% reported that the pregnancy was too advanced to be given a choice (70% if their first contact was at 7 weeks of amenorrhea versus 28% if the first contact was before 6 weeks; $p<0.001$), 35% reported that they had trusted the doctor to make the best choice for them, 13% declared that they were not consulted about the subject and 4% said there was only one technique offered in the facility they attended.

Closely linked to method choice, the information on abortion techniques women are required to receive at their first medical visit for an abortion was associated with the type of

abortion procedure. Eighty-four percent of women undergoing a medical procedure reported having received information about the abortion technique versus 79% of those undergoing a surgical procedure ($p=0.06$). Women who were given a choice of abortion technique were more likely to report they received information on the different types of abortion procedures than others (90.6% vs. 73.7%; $p<0.0001$). Thus 90.2% of eligible women who had chosen medical over surgical abortion were given information *versus* 73% of eligible women who underwent a medical procedure but had not participated in the choice of abortion techniques ($p<0.0001$). The same difference was found among women eligible for both techniques who underwent a surgical procedure: 92.4% of those who chose surgical over medical abortion were given information *versus* 74.4% of eligible women who had a surgical procedure and were not given the choice of techniques ($p<0.0001$).

4. Discussion

This study is one of the few to explore women's preference in abortion technique among a large random sample of abortion patients. The type of abortion procedure was mostly dependent on gestational age and women's involvement in the decision making process. Thus, our results that relate to French women suggest that abortion care for early pregnancies follows a prevailing pattern favoring medical procedures at early gestational ages and surgical abortions at later durations of pregnancies, as reflected in the dramatic differences in abortion technique by gestational age at first contact. As argued by Slade and al. [6], this dichotomy of care, which is most apparent when the health care provider decides on the abortion technique, is likely to be based on expediency rather than on method preference. Possible provider-linked arguments for medical procedures at early gestational ages include faster accessibility of health services for medical procedures [6] and the fear for higher failure rates of aspirations performed before 7 weeks [8]. At a later gestational age (7 weeks of amenorrhea), health care providers may anticipate more side effects leading to lower satisfaction with the medical protocol compared with the surgical treatment and thus prefer vacuum aspiration [9]. The mandatory 8-day waiting period required in France between the first contact and the procedure is also likely to explain the choice of vacuum aspiration when women consulted at 7 weeks, although some professionals reduce the waiting period in order to offer the possibility of a medical procedure. The pattern of care determined by health professionals does not seem to follow French women's preferences as they always favor the medical procedure regardless of gestational age. Such differences in attitudes between women and their healthcare providers result in large discrepancies in the decisions about abortion technique as gestational age at first contact increases. Eight in every 10 women who participated in the choice of abortion technique chose the medical procedure, a higher proportion than that observed in any previous study [4-7, 10,11]. As the proportion of abortions performed medically has grown steadily in France, acceptability of the technique has improved over time for all women, closing the sociodemographic gap in the use of medical abortion reported in earlier studies [4,5]. Acceptability of medical abortion, however, varies widely across countries, suggesting that differences in service organization and provider support for the medical protocol as well as cultural factors influence women's choices [5,8,12].

Only half of women eligible for both techniques felt that they had been given a choice, which suggests more efforts are needed to ensure patient participation to improve quality of abortion care. The 8-day waiting period is unlikely to explain much of the low participation rate, as only 54% of women who first consulted before 7 weeks reported they were given a choice of abortion methods. Data on eligibility for both abortion techniques based on gestational age at first contact were missing for 23% of women in the study. A third of these women ($n=799$) had undergone a medical procedure. If we include them in the analysis, considering they were eligible for both techniques, results are very similar: 48% reported

having a choice, among whom 87% chose the medical procedure while 60% who did not participate in the decision underwent a medical procedure. Our results are based on women's views and don't take into account the provider's perspectives on patient involvement in the choice of abortion technique. A previous study using the French National Abortion Survey has shown discrepancies of recall between women and their providers regarding contraceptive counseling: a significant proportion of women reported they had received no counseling about contraception while their health care providers indicated they had given these women information about contraception [13]. These results underline the difficulties in providing effective counseling tailored to women's needs in order for them to make informed choices about their treatment options, whether it be contraception or abortion technique. While standardized leaflets providing information on abortion techniques are theoretically distributed to all women undergoing an abortion in France, there is no guideline for abortion counseling, which may cause wide variation in the quality of the information women receive. More research on the effects of providing standardized guidelines for counseling about abortion techniques on women's participation in the decision making process would help decide on the type of interventions needed to improve quality of abortion care.

However, our results also suggest that a significant proportion of women do not wish to be involved in the decisions about their own care (18% in our survey) and expected their clinicians to "know what was best" for them. This proportion is higher than the 11% of women in the Danish trial, who expressed no preferences and were willing to be randomized to receive either treatment [7]. Insufficient or poor quality information may be a barrier to achieve greater patient autonomy [14], but changes in the approach to clinician-patient partnerships may also take time to fully be integrated in the French health care system.

Satisfaction with abortion care was not assessed in our survey; however, previous research has shown that satisfaction is higher after choosing the technique than after being randomized to receive either medical or surgical treatment [5,7], the difference persisting over a two-year follow-up [15]. In a Danish study among 1,033 women undergoing an abortion, the authors found that satisfaction dropped from 82% among medical abortion patients who participated in the decision about abortion technique to 68% among medical abortion patients not involved in that decision [7]. No such difference was observed among women undergoing a surgical abortion [7]. Studies assessing the strength of preference for abortion method show that a majority of women who express a preference feel strongly about their choice, rating the provision of choice as extremely or very important [7,11,15]. Reasons for method preference were not explored in the present survey, but previous research has shown that women opt for a medical termination because they want to avoid surgery or anesthesia and feel the process is more natural, while they choose surgical vacuum because they wish to be unaware of the procedure or prefer shorter treatment [10,15]. A further argument in favor of medical abortion in France may be the availability of community-based medical abortions, first permitted in 2004, which enables women to have abortions outside the hospital setting (surgical procedures can only be performed in hospitals in France). Strong preference for medical over surgical abortion however, was also expressed among hospital patients.

5. Conclusion

Women who felt they were given a choice were 4 times as likely to have a medical procedure as those who were not given a choice, which suggests that an increasing proportion of abortions will be medical procedures in France, if health care providers are willing to share the decision with their patients. Only half of eligible women felt they were given a choice of abortion technique, which reflects the difficulties in providing effective

counseling tailored to women's needs in order for them to make informed choices. These difficulties are not unique to French providers and therefore, we believe they should be brought to the attention of health care providers so they can assess and reflect on strategies to improve doctor-patient interaction in abortion care settings. A minority of women prefers the surgical procedure, which studies have shown is better tolerated when women do not have a preference of abortion technique [7]. Therefore, surgical abortion should remain an option for early abortions in France and elsewhere, including terminations performed before 8 weeks gestation, as practiced in other countries such as in the Netherlands, with high rates of patient satisfaction [8].

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Table 1

Sociodemographic and medical characteristics associated with the type of abortion procedure among women eligible for both techniques

		Surgical abortion	Medical abortion	p
		%	%	
Age, years	<20	15	15	0.73
	20-24	27	26	
	25-29	21	21	
	30-34	16	18	
	35+	21	19	
Living in a couple	Yes	46	47	0.86
	No	54	53	
Children	No	47	48	0.65
	Yes	53	52	
Previous induced abortion	No	63	62	0.69
	Yes	37	38	
Level of education	<High school graduation	39	41	0.78
	Professional high school graduation	12	12	
	General high school graduation	14	12	
	2 years after high school	17	17	
	>2 years after high school	19	18	
Professional situation	Works	53	54	0.77
	Unemployed	14	15	
	Student	19	19	
	Housewife/other	14	12	
Type of health insurance	None	9	7	0.27
	Social security	20	21	
	Social security and private insurance	71	72	
Contraception at the time of conception	Medical	27	28	0.01
	Barrier method	33	38	
	None	39	34	
Gestational age at first medical contact	<6 weeks of amenorrhea	29	62	<0.0001
	6 weeks of amenorrhea	35	30	
	7 weeks of amenorrhea	36	9	
Type of health care professional contacted first	Hospital	13	13	0.62
	Family planning	20	18	
	Gynecologist	32	35	
	GP	34	33	
	Other	2	2	

	Surgical abortion	Medical abortion	p
Type of abortion facility among women undergoing an abortion in a hospital			0.12
Public	80	87	
Private	20	13	

Table 2

Type of abortion technique by gestational age at first contact with a health care professional among women who were given a choice of techniques and women who were not given a choice.

Gestational age at first contact with a health professional	Choice of method		No choice of method		Total	
	Surgical %	Medical %	Surgical %	Medical %	Surgical %	Medical %
<6 weeks of amenorrhea	11.0	89.0	28.9	71.1	18.8	81.3
6 weeks of amenorrhea	21.2	78.8	52.5	47.5	36.6	63.4
7 weeks of amenorrhea	34.2	65.8	82.5	17.5	67.7	32.3
Unknown but gestational age at abortion was less than 8 weeks of amenorrhea	7.3	92.7	22.2	77.8	14.5	85.5
Total *	16.3	83.7	48.4	51.6	32.1	67.9

* <0.0001 <0.0001 <0.0001