Medical versus Surgical Abortion: the importance of women's choice

With an annual incidence rate of 14.5 per 1000 women, elective abortion is a common reproductive health event in France, comprising more than 200,000 procedures each year. An estimated 40% of women will undergo an abortion in the course of their reproductive life, which led the French Inspetion Générale 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 (). 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 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 (). 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 ().

Today, women seeking an elective abortion in France can chose between medical and surgical options before 8 weeks of amenorrhea (49 days). Using a large national 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 included all physicians

and midwives providing abortions in their facility or clinicians affiliated with the hospital provoding medical abortions in their private offices (surgical procedures can be performed only in hospitals in France). The providers included 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.

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). We further excluded women for whom the date of first contact with a health professional was not available (27% of women, n=2,162) or for whom the date of first contact was greater than 7 weeks of amenorrhea (n=1,418). Medical abortions in France are theoretically limited to early pregnancies less than 8 weeks of amenorrhea. Our final study population comprised 4,357 women. These women eligible for both techniques represent 77.9% of women for which data on the date of fist medical contact was available.

Questionnaire

This multi-thematic study was designed to explore the socio-demographic 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 healthcare professional who performed the abortion 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 socio-demographic background, their contraceptive use at the time of conception and the patterns of access to the healthcare facility providing the abortion (date and type of fist medical professional 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 didn't 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 socio-demographic information for an individual woman.

Analysis

We first examined the socio-demographic (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.

Results

Two thirds of women had a medical procedure among those who were eligible for the two techniques. The type of abortion procedure was not dependent on women's socio-demographic characteristics (Table1). 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.

Table 1 Socio-demographic and medical characteristics associated with the type of abortion procedure among women potentially eligible for both techniques

		Surgical Abortion %	Medical Abortion %	
Age	<20	15	14	0.73
	20-24	27	26	
	25-29	21	22	
	30-34	16	18	
	35+	21	19	
Living in a couple	yes	46	47	0.71
	no	54	53	
Children	no	47	48	0.9
	yes	51	52	
Previous abortion	no	63	62	0.77
	yes	37	38	
Level of education	<highschool graduation	39	40	0.92
	professional highschool graduation	12	12	
	general highscool graduation	14	12	
	2 years after highschool	17	17	
	>2 years after high school	19	18	
Professional situation	works	54	54	0.92
	unemployed	14	15	
	student	19	19	
	housewife/other	13	13	
type of health insurance	none	9	7	0.17
	social security	20	21	
	social security and private insurance	71	72	
contraception at the time of pregnancy	medical	27	28	0.009
	barrier method	33	39	
	none	39	33	

Gestational age at first medical contact	<6 weeks of amenorrhea	29	62	
	6 weeks of amenorrhea	35	30	
	7 weeks of amenorrhea	37	9	
Type of health care professional contacted first	hospital	13	13	0.64
	family planning	20	18	
	gynecologists	32	35	
	GP	34	32	
	other	2	2	
	private	13	13	
Type of abortion facility among women undergoing an abortion in a hospital				0.11
	public	80	87	
	private	20	13	

The type of abortion procedure was highly dependent on women's choice. Half of the women (50.1%) who had first contacted a health professional before 8 weeks of amenorrhea reported they had been given the choice of the abortion technique. Women who were given a choice were 4.6 [3.4-6.2] 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): 83% had undergone a medical procedure versus 50% of those who reported they had not been given a choice ($p<0.0001$). Women were more likely to have been given a choice if they had their abortion in a private office (75%) than if they had the abortion in a public or private hospital (49% and 43% respectively). They were also more likely to have participated in the decision about the abortion technique if they had first contacted a healthcare professional early in the process: 57% had a choice if they had first contacted a professional before 6 weeks of amenorrhea, 50% if the fist contact was at 6 weeks and 30% if the first contact was at 7 weeks of amenorrhea, $p<0.0001$. Among the 2,169 women who reported they had not been given a choice, 45% reported that the pregnancy was too advanced to be given a choice (69% if their first contact was at 7 weeks 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, 12.6% declared that they were not consulted about the subject and 4% said there was only one technique offered in the facility they went to.

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-three percent of women undergoing a medical procedure reported having received information about the abortion technique versus 78% of those undergoing a surgical procedure. 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 (Table 2).

Table 2: Type of abortion technique according to information provided to women at the first medical visit and whether they were given a choice.

	Medical Abortion		**Surgical Abortion**	
	Choice of method		Choice of method	
Information on abortion technique at first medical visit	Yes %	No %	Yes %	No %
Yes	67.9	32.1	30.7	69.3
No	37.8	62.2	9.3	90.7
Total	63.1	36.9	26.1	73.9
	P<0.0001		P<0.0001	

Conclusion

This study is one of the few to explore women's preference in abortion technique among a large representative sample of abortion patients. The type of abortion procedure was mostly dependent on gestational age and women's involvement in the decision-making process. Only half of women eligible for the two techniques were given a choice, which suggests more efforts are needed to ensure patient participation to improve quality of abortion care. However, a significant proportion of women (18%) do not wish to be involved in decisions about their own care, and expect their clinician's to "know what is best" for them. Women who were given a choice were 4 times as likely to have a medical procedure than those who were not given a choice, which suggests that an increasing proportion of abortions will be medical procedures in France, if healthcare providers are willing to share the decision with their patients.