Reproductive BioMedicine Online (2010) 21, 687–693

www.sciencedirect.com
www.rbmonline.com

ARTICLE

Salpingotomy or salpingectomy in tubal ectopic pregnancy: What do women prefer?

NM van Mello [a,*], F Mol [a], BC Opmeer [b], EW de Bekker-Grob [c], ML Essink-Bot [d], WM Ankum [a], BW Mol [a], F van der Veen [e], PJ Hajenius [a]

[a] *Department of Obstetrics and Gynaecology, University of Amsterdam, Amsterdam, The Netherlands;* [b] *Department of Clinical Epidemiology and Biostatistics, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands;* [c] *Department of Public Health, Erasmus MC-University Medical Center, Rotterdam, The Netherlands;* [d] *Department of Social Medicine, University of Amsterdam, Amsterdam, The Netherlands;* [e] *Center for Reproductive Medicine, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands*

* Corresponding author. *E-mail address:* n.m.vanmello@amc.nl (NM van Mello).

Norah Melina van Mello received her MD degree in 2006 from the University of Amsterdam, Academic Medical Center. She has started her residency in Obstetrics and Gynaecology in 2008 and is simultaneously working on her thesis on ectopic pregnancy. Her special interests are early pregnancy, fertility and reproductive surgery.

Abstract There is an ongoing debate whether tubal ectopic pregnancy should be treated by salpingotomy or salpingectomy. It is unknown which treatment women prefer in view of the potentially better fertility outcome but disadvantages of salpingotomy. This study investigated women surgically treated for tubal ectopic pregnancy and subfertile women desiring pregnancy and their preferences for salpingotomy relative to salpingectomy by means of a web-based discrete choice experiment consisting of 16 choice sets. Scenarios representing salpingotomy differed in three attributes: intrauterine pregnancy (IUP) chance, risk of persistent trophoblast and risk of repeat ectopic pregnancy. An 'opt out' alternative, representing salpingectomy, was similar for every choice set. A multinomial logistic regression model was used to analyse relative importance of the attributes. This study showed that the negative effect of repeat ectopic pregnancy was 1.6 times stronger on the preference of women compared with the positive effect of the spontaneous IUP rate. For all women, the risk of persistent trophoblast was acceptable if compensated by a small rise in the spontaneous IUP rate. The conclusion was that women preferred avoiding a repeat ectopic pregnancy to a higher probability of a spontaneous IUP in the surgical treatment of tubal ectopic pregnancy.

KEYWORDS: conjoint analysis, discrete choice experiment, ectopic pregnancy, patient preference, salpingectomy, salpingotomy

1472-6483/$ - see front matter
doi:10.1016/j.rbmo.2010.06.034

Introduction

In the majority of women with tubal ectopic pregnancy, laparoscopic surgery is the treatment of first choice (Hajenius et al., 2007). So far, no consensus has been reached whether salpingotomy or salpingectomy leads to better fertility outcome. A few non-randomized studies using life table analysis suggested that intrauterine pregnancy (IUP) rates are higher and time to subsequent IUP is shorter after salpingotomy compared with salpingectomy (Job-Spira et al., 1996; Mol et al., 1998; Silva et al., 1993). Especially in women with a history of bilateral tubal pathology, salpingotomy offered better IUP rates, whereas in women without a history of tubal pathology this benefit could not be demonstrated. Not unexpectedly, these studies found that the risk of persistent trophoblast, necessitating additional treatment with systemic methotrexate (MTX), and repeat ectopic pregnancy after salpingotomy was increased (Mol et al., 1998; Silva et al., 1993).

Apart from clinical outcomes, patients' preferences are also of importance in clinical decision making. In the field of surgical treatment of ectopic pregnancy, patients' preferences are not known. The question is whether patients feel that a possibly better fertility outcome after salpingotomy as compared with salpingectomy outweighs the risk of persistent trophoblast and repeat ectopic pregnancy. Discrete choice experiments (DCE) have increasingly been used in health care as an approach to elicit patient preferences (de Bekker-Grob et al., 2008; Ryan et al., 2001; Ryan and Hughes, 1997). The current study therefore investigated the preference of women of reproductive age regarding salpingotomy relative to salpingectomy by means of a DCE.

Materials and methods

Participants

Women were included who had been treated for tubal ectopic pregnancy in The Netherlands as part of The European Surgery in Ectopic Pregnancy (ESEP) trial (ISRCTN 37002267). The ESEP trial is an ongoing international multicentre randomized controlled trial that compares salpingotomy and salpingectomy for tubal ectopic pregnancy to study the impact on future fertility. Only women with a tubal ectopic pregnancy amenable to both treatment interventions and a healthy contralateral tube at surgery are included in this trial. Women pregnant after IVF and/or with known documented tubal pathology are excluded, as well as women with no desire for future pregnancy. Further details of the ESEP protocol are described elsewhere (Mol et al., 2008). Women were invited to participate in the present study at least 3 months after undergoing surgery. They were contacted by telephone by the Dutch ESEP coordinators and were informed about this study. As these women had experienced either salpingotomy or salpingectomy, their preferences could have been biased by the treatment they had received (Boyd et al., 1990). This study therefore also included consecutive patients first visiting the Centre for Reproductive Medicine in the Academic Medical Centre and the infertility clinic in the Onze Lieve Vrouwe Gasthuis in Amsterdam from March until June 2008. These women were considered to be representative for those who might experience an ectopic pregnancy in the future, and thus could face this dilemma, yet were naive to both salpingotomy and salpingectomy. These women were invited through an information leaflet explaining the study, handed out by the consulting doctor of the infertility clinic. Women with a history of surgically treated ectopic pregnancy and those referred for IVF were excluded for obvious reasons.

Interview procedure

All women were sent a web-based questionnaire. Women with unopened or incomplete questionnaires were contacted by phone as a reminder and were offered additional instructions if required. A paper version of the questionnaire was sent to women without an internet connection and/or e-mail address. The questionnaire contained general information about tubal ectopic pregnancy, followed by a thorough description of salpingotomy and salpingectomy and the pros and cons of both treatment interventions. After reading the general information, but before starting the actual questionnaire, women were asked about their preference if they were to be confronted with the choice between salpingotomy and salpingectomy in case of a tubal ectopic pregnancy (a-priori preference).

Discrete choice experiment

Preferences for salpingotomy relative to salpingectomy were studied by means of a DCE. A DCE assumes that a given treatment intervention can be described by its characteristics or 'attributes' and that women's preferences for an intervention are determined by the levels of these attributes (de Bekker-Grob et al., 2008; Gyrd-Hansen and Sogaard, 2001; Ryan and Hughes, 1997; Watson et al., 2004). The relative importance of the attributes is assessed by offering a choice between several sets of treatment alternatives with systematically varying combinations of attribute levels (Ryan et al., 2001). A DCE was designed to determine the trade-offs that women make between a hypothetically improved spontaneous IUP rate against the burden of additional treatment with systemic MTX for persistent trophoblast together with the increased risk of a repeat ectopic pregnancy after salpingotomy.

Attributes and attribute levels

The selection of attributes was based on data from the literature, expert panel opinion and personal views of women eligible for the ESEP study. The attributes were defined as: (i) spontaneous IUP rate within 1 year after surgical treatment; (ii) the risk of additional treatment with systemic MTX for persistent trophoblast; and (iii) the risk of a repeat ectopic pregnancy in the same tube. The attribute levels for spontaneous IUP were 20–50%, for persistent trophoblast 5–20% and for repeat ectopic pregnancy 5–15%. IUP and ectopic pregnancy rates were derived from previous non-randomized studies using life table analysis (Bouyer et al., 2000; Mol et al., 1998). Persistent trophoblast rates were derived from data of randomized controlled trials varying from 8% to 20% (Hajenius et al., 2007). The current