**LETTERS TO THE EDITOR**

**Recurrent miscarriage: guidelines could be improved**

Sir,

In their study ‘Recurrent miscarriage: do professionals adhere to their guidelines’ (Van den Boogaard et al., 2013) the authors found a low adherence to the guidelines for recurrent miscarriage (RM). They seem to be somewhat disappointed; at least they state that there is ‘evident room for improvement’. However, if guidelines are poorly followed it might be a good reason to reconsider the guidelines. For several of the advices in the present guidelines the evidence is meagre or even absent.

*Parental karyotyping:* This screening has been introduced without proper investigation of the possible benefits. The aim of the test is the identification of fetuses at risk for an unbalanced translocation of chromosomes, leading to congenital malformation. Franssen et al. (2006) found 382 balanced translocations in almost 12 000 couples who had been karyotyped because of RM, i.e. in 3.2%. In 550 of the pregnancies that were observed in this group of ‘carriers’ only 4 children with an unbalanced translocation were identified, i.e. in 0.7%. In the present study of Boogaard et al. a parental structural chromosome abnormality of clinical relevance was found in 7 of 341 women, i.e. in 2.1%. Therefore, the chance for an affected child due to an unbalanced translocation in this group would be extremely low: 0.7% of 2.1%, i.e. 0.013% or 1.5 in 1000. Even if by way of a more selective method of karyotyping the result could be doubted the risk remains too low to justify the use of this screening method. This was acknowledged by Franssen (2010): ‘Karyotyping of couples with RM is not efficient and should therefore be abandoned’.

*Testing for anti-phospholipid syndrome (APS):* In the study of Boogaard et al. only four women (1.6%) were found to have APS; a population of patients who, according to the guidelines, should be treated with aspirin and heparin. However, the effect of treatment with these agents is disputed (Laskin et al., 2009; Duckitt and Qureshi, 2011). As long as a beneficial effect of the proposed treatment is uncertain, testing for APS should not be part of the guideline. The same holds true for hyperhomocysteinaemia. We have to wait for better evidence than available at present.

*Counselling:* The Dutch guidelines 2007 (Goddijn et al., 2008) advise to use the table of Brigham et al. (1999) when discussing the prognosis for an ongoing pregnancy. This table provides the observed percentages success in subsequent pregnancies according to age and previous miscarriage history in women with ‘unexplained’ RM. The average age of the women of the study of Boogaard et al. is 34 years; therefore, the relevant part of this table is:

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number of previous miscarriages</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 years</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Success rate in next pregnancy (%)</td>
</tr>
<tr>
<td>3</td>
<td>77</td>
</tr>
<tr>
<td>4</td>
<td>73</td>
</tr>
<tr>
<td>5</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>62</td>
</tr>
</tbody>
</table>

When we apply these figures to the group of women in the study of Boogaard et al. the prognosis can be calculated as follows:

- 530 women, 2 miscarriages. Next pregnancy 77% = 408 children, 122 miscarriages.
- 122 women, 3 miscarriages. Next pregnancy 73% = 89 children, 33 miscarriages.
- 33 women, 4 miscarriages. Next pregnancy 68% = 22 children, 11 miscarriages.
- 11 women, 5 miscarriages. Next pregnancy 62% = 7 children, 4 miscarriages.

This calculation shows that if these women had been encouraged to continue their attempts to achieve an ongoing pregnancy we could have expected a cumulative success of 408 + 89 + 22 = 519 (98%) after three, and 526 (99%) after four more pregnancies.

These results demonstrate that although unidentified maternal factors may exist that increase the risk for a miscarriage, these do not prevent the development of a normal pregnancy. The explanation is that in most cases of RM embryological factors are predominant, just as in sporadic miscarriage. In counselling our patients it should be stressed that miscarriages are largely part of the natural selection process in human reproduction, and therefore should be appreciated as a positive occurrence. Some women seem to have a larger miscarriage risk than others, probably due to preconceptional causes. If the individual risk is taken into consideration the recurrence is completely explained as a chance event. Continuing their attempts to achieve a live birth without intervention is the best choice they can make: cheap, no side effects and highly effective.

If guideline quality is poor, it is no wonder that practitioners disregard them. Adherence will improve if the guidelines are revised according to available evidence. Women with RM deserve our moral and practical support; moreover, they deserve better guidelines, which should be based on robust current knowledge, if available, and, if lacking, on Hippocrates’ old, but still valid principle of ‘primum non nocere’ (first, do no harm).
References


Duckitt K, Qureshi A. Recurrent miscarriage. *Clin Evid (online)* 2011; pii i409.


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Reply: Recurrent miscarriage: guidelines could be improved

Sir,

We read with interest the Letter to the Editor by W. Vlaanderen, as a response to our paper ‘Recurrent miscarriage: do professionals adhere to their guidelines’. Vlaanderen states that ‘if guidelines are poorly followed it might be a good reason to reconsider the guidelines’. In other words, that the poor adherence is a result of a poor guideline. This is an important statement and we would like to reply as follows:

In 2007 we demonstrated that the adherence to the guideline was rather poor but we could only speculate about the reasons at that time (Franssen et al., 2007). In the present paper, we identified the main barriers for non-adherence to the guideline, such as doctors finding it difficult to refuse demands of insistent patients and the lack of up to date patient information. In fact, gynaecologists who did not agree with the content of the guideline mainly wished to perform more diagnostic tests, for example karyotyping in all couples. Thus, disagreement with the content of the guideline appeared to be only a minor barrier for non-adherence (van den Boogaard et al., 2011).

Nevertheless, we obviously agree completely with Vlaanderen that the content of the guideline is continuously subject to new evidence. Currently, the Dutch guideline on recurrent miscarriage is under revision, with the level of evidence for recommendations provided. The lack of conclusive evidence on aspects of recurrent miscarriage, and the best available evidence will be summarized in the revised guideline. The results of our study and of the implementation strategy can then be used as a framework for adherence to the revised guideline on recurrent miscarriage in order to improve measurable quality of care for couples with recurrent miscarriage. These efforts form the never-ending quest for estimation of the truth.

References


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