Re: Randomized Trial of a Specialist Genetic Assessment Service for Familial Breast Cancer

Since the identification of the BRCA1 and BRCA2 genes, there has been an increasing demand for DNA testing for hereditary breast–ovarian cancers. This testing raises the important issues of the most appropriate genetic risk assessment and the most appropriate medical setting for this assessment. In this respect, Brain et al. (1) have shown recently, by comparing consultations on risk assessment conducted by surgeons with and without genetic risk assessment by specialist genetics staff, that providing specialist genetics services to all women with a family history of breast cancer resulted in few psychologic benefits. However, at least two elements should be considered before generalizing these results to the international level. First, because health care systems are heterogeneous and medical organizations vary from country to country, there may also have been differences in terms of primary care providers and their subsequent patient referrals (2,3). Second, specialists other than surgeons may be involved in the risk assessment process. Consequently, in a population-based study, it is of the utmost importance to evaluate the willingness of physicians involved in the management of breast cancer risk to inform women about their familial risk and to share this information with other specialists.

With this aim, a national random sample of 1169 general or gynecologic surgeons and gynecologists–obstetricians was surveyed by use of a mailed questionnaire, to which 700 of those contacted responded (60%) (4). Differences were seen among those who answered (n = 677) the question about their willingness to inform women about their familial risk of breast cancer. Sixty percent (n = 33) of gynecologic surgeons would give information on genetic risk with no referral to another specialist including a geneticist, whereas 43.1% (n = 213) of gynecologists–obstetricians and 40.6% (n = 52) of general surgeons (two-sided chi-squared test, \( P < .001 \); Table 1) would do so. We evaluated parameters affecting a physician’s attitude about referring to a geneticist by multivariate analysis (logistic regression analysis using the SPSS version 9.0 statistical software package) and found a major parameter was the physician’s knowledge about hereditary breast and ovarian cancer. Thus, only 40.4% (n = 173) of those with a knowledge of these subjects at the median or below (n = 428) would refer patients to a geneticist, whereas 63.1% (n = 157) of those with a knowledge above the median (n = 249) (\( P < .001 \); adjusted odds ratio \([\text{OR}_{\text{adj}}] = 2.3\); 95% confidence interval \([\text{CI}] = 1.6 \text{ to } 3.2\) would). The sex of the physicians also is a statistically significant factor. Almost 57.5% (n = 179) of female physicians (n = 312) would make a referral to a geneticist, whereas almost 40.5% (n = 148) of male physicians (n = 366) (\( P < .001 \); \([\text{OR}_{\text{adj}}] = 1.9\); 95% CI = 1.3 to 2.8) would refer their patient to a geneticist.

An important result from our study, carried out in a country where the access to specialists is not dependent on previous referral, is that other specialists as well as general surgeons want to participate in the risk assessment process. A high proportion of these specialists (51.2%) might not refer women to another specialist including a geneticist. However, knowledge about cancer genetics is a major factor in the physician’s decision. Thus, we observed that those who have the lowest level of knowledge about hereditary cancers are also those who would not refer women to a geneticist. Consequently, one could wonder whether a risk assessment system involving mainly nongeneticists is appropriate, even if it is valid from an economic point of view or if decreased patient anxiety is observed (1). We have shown previously (5) a benefit of cancer genetics consultation by comparing the anxiety rates of patients before and after the medical encounter, as reported by Brain et al. (1). However, this variation does not depend on the disease status or on the risk status. Because factors modifying the anxiety rate remain to be investigated, the exact meaning of the benefit observed in both studies (1,5) must be considered carefully.

Finally, the choice of surgeons as key referents in risk assessment of healthy women implies strongly that prophylactic surgery is the pivotal strategy to prevent development of familial breast cancer. In this respect, a woman’s preference about this strategy and professional recommendations vary among populations (6). Consequently, in addition to economic considerations, before making a decision about the most appropriate system to deal with hereditary breast cancer risk, one should be aware of potential conflicts among the efficacy of interventions, a woman’s acceptability (7), and the subsequent effects on a patient’s attendance to genetic risk assessment services.

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REFERENCES


NOTES

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Table 1. Physicians’ willingness to inform women, with or without referral, about their genetic risk of breast cancer with reference to their medical specialty

<table>
<thead>
<tr>
<th>Risk assessment</th>
<th>Physicians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General surgeons, No. (%)</td>
<td>Gynecologist surgeons, No. (%)</td>
<td>Gynecologists-obstetricians, No. (%)</td>
</tr>
<tr>
<td>Without a geneticist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No referral</td>
<td>52 (40.6)</td>
<td>33 (60.0)</td>
</tr>
<tr>
<td>Referral to a non-geneticist specialist</td>
<td>23 (18.0)</td>
<td>2 (3.6)</td>
</tr>
<tr>
<td>With a geneticist</td>
<td>53 (41.4)</td>
<td>20 (36.4)</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>55</td>
</tr>
</tbody>
</table>

*Of the 700 participants, only 677 physicians responded to this item.
†The physicians’ willingness to inform women, with or without referral, about their genetic risk of breast cancer with reference to their medical specialty was analyzed by using a two-sided \( \chi^2 \) test (\( P < .001 \)).