Risk-reducing Surgery in Women at Risk for Familial Breast or Ovarian Cancer

An estimated 5% of breast cancers and 10% of ovarian cancers may be due to inherited autosomal dominant breast and ovarian cancer alleles BRCA1 und BRCA2. According to population-based studies 1 or 2 women per 1000 carry such a risk allele. The cumulative cancer risk for population-based a BRCA-mutation is between 60 and 85% for breast cancer and between 20 and 60% for ovarian cancer. Recent studies have reported an increased risk for contralateral breast cancer in women after unilateral breast cancer. Since 1997 the German Cancer Aid has supported an interdisciplinary approach for high-risk women consisting of genetic testing, counselling and prevention in 12 specialised centres. Since 2005 this concept has received additional support from health insurance companies, and results have been assessed with regard to outcomes (e.g. reduced mortality due to more intensive early diagnosis). The number of centres has increased to 15 at various university hospitals. These interdisciplinary centres offer women the opportunity to participate in a structured screening programme for the early diagnosis of breast cancer and provide non-directive counselling on the options for risk-reducing surgery, e.g., prophylactic bilateral salpingo-oophorectomy, prophylactic bilateral mastectomy or contralateral prophylactic mastectomy after unilateral breast cancer. Such surgical interventions can significantly reduce
the risk of disease, the respective disease-specific mortality and - particularly prophylactic bilateral salpingo-oophorectomy - total mortality in BRCA-mutation carriers.