



Causes for psychological distress in persons at risk at hereditary colon cancer

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Background

Colorectal cancer is ranked second in cancer mortality among men and women. Approximately 5 to 10 % of colon cancer is hereditary. Recent studies on the psychological and psychosocial consequences of Hereditary Non-Polyposis Colorectal Cancer (HNPCC) showed inconclusive results: Some studies found a higher level of psychological distress in persons at risk, but some studies did not. Differences between mutation positive and negative tested persons were described. Other studies showed that the interest in up-taking of a genetic test is strongly influenced by the personal perceived risk: Persons with a subjective (not objective) high risk for developing cancer are more in favour to undertake a genetic test. Our study (sponsored by Deutsche Krebshilfe) investigated associations between psychological distress and subjective risk for HNPCC.

Methods

72 persons at risk for HNPCC (28 male, 44 female, mean age 42.6 years, range 16-67 years) completed questionnaires two weeks before (t1) and two weeks after (t2) genetic counselling at the Dresden Institut für Klinische Genetik. 49 persons were healthy risk persons, 23 persons were suffering from colon cancer. The questionnaire set consists of various instruments for the assessment of psychological distress and well-being: Among others HADS (anxiety, depression), SCL-9 (psychological distress) and SF-12 (physical and psychological well-being). Furthermore we ask for the subjective beliefs about the seriousness of colon cancer and personal risk for this illness.

Results

We found an elevated level of psychological distress among the counselees at both times of measurement. Approximately 25 % showed mental health problems (compared with representative norms, data not shown). No differences in psychological distress were found between healthy risk persons and patients diagnosed with colon cancer or between men and women. The differences between the scores for psychological distress before (t1) and after genetic counselling (t2) did not differ (see table 1). Psychological distress was neither associated with objective (Amsterdam-/Bethesda-) criteria, nor with sex, age or other sociodemographic or medical characteristics (no significant correlations, data not shown). However distress was strongly associated with perceived risk for HNPCC/colon cancer and personal beliefs about the seriousness of colon cancer (data not shown). Table 2 presents data (at t1) on two sub samples with high or low in perceived personal risk of developing colon cancer (PR high/PR low). Persons with high risk were significantly more distressed (anxiety, global distress) and indicated a lower quality of life (psychological well-being).

Discussion

The prevalence of distress is higher in the participants of this study than in the German general population. Furthermore, the results indicate that perceived personal risk for HNPCC is associated with the development of psychological distress. The subjective risk of the study participants was not associated with their objective risk. Therefore in genetic counselling for hereditary cancer the best possible education about the objective personal risk is of great importance. This might help to prevent/reduce the development of psychological distress in the counselees. However, the small number of persons in our ongoing study does not allow to draw final conclusions at the moment.

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Table 1: Psychological distress (HADS, SCL-9, SF-12) 14 days before (t1) and after (t2) genetic counseling (Means, SD)

	t1	t2	
Anxiety (HADS)	6,31 (3,12)	5,29 (3,58)	t(df=77)=0,28, p>.05
Depression (HADS)	3,99 (3,67)	3,77 (3,76)	t(df=139)=7,70, p>.05
Psychological Distress (SCL-9)	0,72 (0,68)	0,71 (0,69)	t(df=141)=0,09, p>.05
Physical wellbeing (SF-12)	48,39 (9,64)	49,62 (8,81)	t(df=134)=-1,89, p>.05
Psychological wellbeing (SF-12)	49,73 (10,76)	49,85 (10,39)	t(df=105)=-1,19, p>.05

Table 2: Psychological distress (HADS, SCL-9, SF-12) in persons with low (PR low) and high (PR high) perceived personal risk for hereditary colon cancer (Means, SD at t1)

	PR low (N=22)	PR high (N=37)	
Anxiety (HADS)	3,77 (2,97)	6,27 (3,96)	t(df=57)=-2,74, p<.05
Depression (HADS)	2,54 (3,71)	4,54 (3,94)	t(df=57)=-1,95, p=.057
Psychological Distress (SCL-9)	0,46 (0,43)	0,84 (0,84)	t(df=57)=-2,29, p<.05
Physical wellbeing (SF-12)	52,65 (6,17)	49,19 (9,32)	t(df=54)=1,66, p>.05
Psychological wellbeing (SF-12)	53,39 (7,92)	48,87 (10,92)	t(df=54)=1,78, p<.10

