Prospective analysis of psychological distress in men being investigated for prostate cancer

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ABSTRACT

Objectives: To determine the level and prevalence of anxiety and depression in men being investigated for prostate cancer (CaP) and also to identify those aspects of the diagnostic pathway that induces the most stress.

Materials and Methods: All patients undergoing transrectal ultrasound-guided biopsy (TRUS-B) of the prostate for suspected CaP at our institute between June 2008 and April 2009 were enrolled in this prospective study. All patients completed two questionnaires, prior to their biopsy (HADS1) and before receiving results (HADS2), containing the Hospital Anxiety and Depression Scale (HADS). The data were analyzed and the differences in HADS were compared.

Results: A total of 112 men were included in the trial. Two patients could not complete the second part of HADS (HADS2) and were excluded from the study. Prevalence of anxiety among the 110 patients was 43/110 (39.1%). Mean score for anxiety in these 43 patients before biopsy (HADS A1) was 10.74 and score just before receiving the biopsy report (HADS A2) was 11.55. Prevalence of depression before TRUSB (HADS D1) was 21/110 (19.1%) with a mean score of 10.59. Prevalence of depression while awaiting the biopsy report (HADS D2) was 22/110 (20%) with mean score of 10.62.

Conclusion: There was a high prevalence of anxiety and depression in our study population and waiting for biopsy results was the most stressful event. Questionnaires such as HADS can identify patients with psychological distress. Minimizing the stress while waiting for a diagnosis should help optimize patient care.

Key words: Anxiety, depression, prostate cancer, transrectal ultrasound guided prostate biopsy

INTRODUCTION

The high prevalence of anxiety in patients with cancers is well recognized,[1,2] but studies on the prevalence of anxiety and depression in patients who specifically have or are at risk for prostate carcinoma (CAP) are limited.[3]

One neglected area of our current understanding for health-related quality of life and decision-making in CAP is the role of patient anxiety, and our current knowledge remains fragmentary; this work is an attempt to understand it for the betterment of patients. To assess the psychological distress in patients being evaluated for CAP, we studied the levels of anxiety and depression in individuals being evaluated with serum prostate specific antigen (PSA) levels and transrectal ultrasound-guided biopsy (TRUSB).

MATERIALS AND METHODS

All male patients above the age of 50 years have a digital rectal examination (DRE) and serum PSA estimation at our outpatient clinic; those with an abnormal DRE and/or elevated PSA (>4 ng/ml) are then advised to undergo TRUSB. All such patients undergoing TRUSB for suspected CAP between June 2008 and August 2009 were enrolled in this prospective study.

Patients with bleeding diathesis, anticoagulation therapy, painful perianal conditions or lidocaine allergy, as well as those who could not complete the questionnaires were excluded from the study.

Once selected to undergo TRUSB, patients were counseled...
and prepared as per a protocol that had been approved by the institute ethics committee. All patients were counseled regarding the need for biopsy, nature of the procedure, and possible outcomes of biopsy. An informed consent was obtained prior to biopsy and the Hospital Anxiety and Depression Scale (HADS1) questionnaire [Table 1] in the local language was completed. Transrectal ultrasound guided ten-core biopsies were taken under local anesthesia as per the hospital protocol. All patients returned home after a brief period of observation and were reviewed after 1 week. Prior to receiving the biopsy report, they once again completed the questionnaire containing the Hospital Anxiety and Depression Scale (HADS2).

HADS has two subscales: HADS–anxiety subscale and HADS–depression subscale. Seven questions relate to symptoms of depression and seven to anxiety over the previous week; response to each question is graded as 0–3. The maximum score is 21 on the anxiety and depression subscales. The thresholds for case identification are defined as 8–10 (mild), 11–14 (moderate), 15–21 (severe).

After completing the HADS2 questionnaires, biopsy report was disclosed to patients. Patients with histological evidence of CAP were planned for definitive treatment based on other clinicopathological factors while those with a noncancer diagnosis were counseled accordingly.

A single surgeon (SJ) was involved in counselling patients, performing the biopsy and informing the results. The data were reviewed and statistical analysis done using SPSS 11 software.

RESULTS

Here 112 consecutive men satisfying the criteria for undergoing a TRUSB were included in this study. However, only 110 patients completed both questionnaires. Two patients could not complete the HADS2 due to heightened anxiety and were thus excluded from the study after being informed of the biopsy report over telephone. Data from the remaining 110 patients was studied [Table 2]. Mean age of patients was 64.62 (range: 39–81) years. The time gap between biopsy and disclosure of report was 7 days in all patients.

Prevalence of anxiety before TRUSB (HADS A1) was 43/110 (39.1%) and while awaiting the biopsy report (HADS A2) was 60/110 (54.5%). Mean score for anxiety in these 43 patients before biopsy (HADS A1) was 10.74 and score just before receiving the biopsy report (HADS A2) was 11.55; this rise in score while awaiting biopsy results was statistically significant (P value 0.002).

| Question                                                                 | Yes. definitely | Yes. sometimes | No. not much | No. not at all |
|--------------------------------------------------------------------------|-----------------|----------------|--------------|---------------|
| I awake early and then sleep badly for rest of night                     | 3               | 2              | 1            | 0             |
| I get very frightened or have panic feelings for apparently no reasons   | 3               | 2              | 1            | 0             |
| I feel miserable and sad                                                 | 3               | 2              | 1            | 0             |
| I feel anxious when I go out of house on my own                          | 3               | 2              | 1            | 0             |
| I have lost interest in things                                           | 3               | 2              | 1            | 0             |
| I get palpitations or sensations of “butterflies” in my stomach and chest| 3               | 2              | 1            | 0             |
| I have good appetite                                                     | 0               | 1              | 2            | 3             |
| I feel scared and frightened                                             | 3               | 2              | 1            | 0             |
| I feel life is not worth living                                          | 3               | 2              | 1            | 0             |
| I still enjoy the things I used to fit                                   | 0               | 1              | 2            | 3             |
| I am restless and I cannot keep still                                    | 3               | 2              | 1            | 0             |
| I am more irritable than usual                                            | 3               | 2              | 1            | 0             |
| I feel as if I have slowed down                                          | 3               | 2              | 1            | 0             |
| Worrying thoughts constantly go through my mind                          | 3               | 2              | 1            | 0             |

Table 1: Anxiety and depression scoring sheet

| Question                                                                 | Scoring                                                                 |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------|
| I awake early and then sleep badly for rest of night                     | 3, 2, 1, 0 (for items 7 and 10 scoring is reversed)                      |
| I get very frightened or have panic feelings for apparently no reasons   |                                                                        |
| I feel miserable and sad                                                 |                                                                        |
| I feel anxious when I go out of house on my own                          |                                                                        |
| I have lost interest in things                                           |                                                                        |
| I get palpitations or sensations of “butterflies” in my stomach and chest|                                                                        |
| I have good appetite                                                     |                                                                        |
| I feel scared and frightened                                             |                                                                        |
| I feel life is not worth living                                          |                                                                        |
| I still enjoy the things I used to fit                                   |                                                                        |
| I am restless and I cannot keep still                                    |                                                                        |
| I am more irritable than usual                                            |                                                                        |
| I feel as if I have slowed down                                          |                                                                        |
| Worrying thoughts constantly go through my mind                          |                                                                        |

Anxiety 2, 4, 6, 8, 11, 12, 14; Depression 1, 3, 5, 7, 9, 10, 13; Scoring 3, 2, 1, 0 (for items 7 and 10 scoring is reversed) Grading: 0–7 = non case 8–10 = borderline case 11+ = case

Table 2: Anxiety and depression scores in 110 patients assessed before biopsy and before informing report

| HADS | Scores | 0–7 | 8–10 | 11–14 | 15–21 | >7(%) |
|------|--------|-----|------|-------|-------|------|
| A1   |        | 67  | 23   | 16    | 14    | 43   |
| A2   |        | 50  | 30   | 16    | 14    | 60   |
| D1   |        | 89  | 10   | 11    | 0     | 21   |
| D2   |        | 88  | 11   | 11    | 0     | 22   |

HADS = Hospital anxiety and depression scale, A1 = Anxiety subscale before biopsy, A2 = Anxiety subscale before receiving biopsy results, D1 = Depression subscale before biopsy, D2 = Depression subscale before receiving biopsy results.
Prevalence of depression before TRUSB (HADS D1) was 21/110 (19.1%). Mean score in these men was 10.59. Prevalence of depression while awaiting the biopsy report (HADS D2) was 22/110 (20 %) with mean score of 10.62. This rise in score was not statistically significant.

DISCUSSION

Psychological distress after a diagnosis of any cancer is well recognized. In a study of newly diagnosed breast cancer, even psychiatric disorders were found in 34–46% of patients. Our analysis shows significant stress levels in patients with suspected CAP who are being investigated to confirm or eliminate the diagnosis. The levels of depression were slightly less than the anxiety levels and remained constant during both stages of the assessment. The anxiety levels vary during the clinical timeline from a positive rectal examination and/or an elevated PSA level. Our observation showed an increase in the number of anxious subjects during the wait for the results of TRUSB; also there was a significant increase in the severity of the anxiety levels during the same period. This heightened anxiety while awaiting the results of TRUSB has been previously described in a similar population of men being screened for CAP. This variation has been thought to be a response to the uncertainty of diagnosis.

The curiosity to know the result of any diagnostic test often produces a certain amount of anxiety. A normal/benign report often provides reassurance and decreases anxiety in this setting. In fact, anxiety levels may even decrease after a diagnosis of cancer, although not to the levels of a noncancer diagnosis. This demonstrates a general anxiety-relief value for biopsy results in men who have elevated PSA, thereby suggesting the anxiolytic role of information receipt, even when the information received is not the preferred outcome.

Before assessing the results of anxiety levels in men who are screened for or have CAP, we need to know the baseline anxiety levels in the population at risk for CAP. Unfortunately, exact prevalence rates of baseline anxiety in this at-risk population in the Indian scenario do not exist. In the United States, 1-year prevalence estimate of anxiety disorders is reported to be 11.4% in population above age of 55 years.

Our study included only patients selected from the general urology outpatient clinics and did not necessarily include those at high risk of harboring CAP. However, existing literature has shown an additional 20% aggravated anxiety in first degree relatives of CAP patients compared to those with no family history of CAP.

Our analysis did not show a significant change in depression levels during the wait. Although intriguing, it is possible that patients receiving an unfavorable result (diagnosis of cancer) may eventually show an increased level of depression; this needs to be evaluated in larger numbers.

The relatively high level of psychopathology suggests that for most men being evaluated for CAP, there is need for good counseling while awaiting biopsy results. Based on our assessment, we have now streamlined our biopsy procedure to include detailed counseling and early disclosure of biopsy results. There is also a need to provide adequate support and information to all patients as part of routine care; for this we now involve the medical social worker and if needed a clinical psychologist also.

CONCLUSION

There is a high incidence of clinically significant anxiety and depression in men being investigated for prostate cancer. Uncertainty about the future while awaiting biopsy results after TRUSB seem to be the most stressful event in patients’ lives and minimizing this wait should help optimize patient care. Questionnaires such as HADS may identify patients with psychological distress who may benefit from early counseling.

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