ASSESSING THE ASSOCIATION BETWEEN COMPLIANCE AND THERAPEUTIC FAILURE FOR ANTIRETROVIRAL DRUGS IN HIV POSITIVE PATIENTS

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OBJECTIVES: To analyse the association between compliance and therapeutic failure for antiretroviral drugs in HIV positive patients, and to assess the accuracy of compliance measurement as if it were a predictive test for treatment failure. METHODS: Articles that reported the association between compliance, monitored by electronic compliance-monitoring devices (ECMDs), and treatment outcome with highly-active antiretroviral therapies in HIV positive patients were identified. Data on compliance (proportion of doses taken) and treatment failure, defined as viral load >400, or >500 copies of HIV RNA/ml, were extracted for analysis. In most cases, compliance was measured on a continuous scale but categorised into quartiles, quintiles or arbitrarily chosen ranges. From these data, analyses of the receiver operating characteristics (ROC) were made. Authors were contacted in cases where appropriate data were not available. For each study the area under the ROC curve and the 95% confidence interval were calculated by the nonparametric method. A meta-analysis of all HIV trials identified was performed using a fixed-effect model. RESULTS: Six studies that presented the association between treatment failure and compliance (proportion of doses taken) were identified. The results of the meta-analysis gave a pooled area under the ROC curve of 0.74 (95% confidence interval 0.69–0.79) (test for heterogeneity $X^2 = 5.49, df = 5, p = 0.36$). A mean area under the ROC curve of 0.74 suggests that if we look at two patients, one a treatment success and the other a treatment failure, the probability is 0.74 that the patient failing therapy will have the positive test result, i.e. will be non-compliant. CONCLUSION: Reliable compliance history obtained from ECMDs is a reasonable predictor of treatment failure in HIV. The observed association between compliance and virological failure, however, does not necessarily imply that correction of compliance nullifies these failures.

CULTURAL ADAPTATION AND VALIDATION OF A HEALTH-RELATED QUALITY OF LIFE QUESTIONNAIRE (HQLQ) FOR ENGLISH-SPEAKING HEPATITIS B PATIENTS IN SINGAPORE

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OBJECTIVES: To culturally adapt the Hepatitis Quality of Life Questionnaire (HQLQ) and assess its suitability for use in English-speaking hepatitis B virus infected (HBV) patients in Singapore. METHODS: Two patient focus groups were conducted to facilitate the cultural adaptation of the HQLQ, a disease-targeted, multi-item scales HRQoL questionnaire. Reliability was assessed using Cronbach’s alpha coefficients (for internal consistency) and intraclass correlation coefficients (for test retest reliability). Item-to-scale correlation (corrected for overlap) was assessed using Spearman’s rank correlations (p) between scale scores and their constituent items. For known-groups validity, statistically significant differences in all scale scores among different categories of HBV patients, namely asymptomatic carrier, chronic hepatitis B, compensated cirrhosis, decompensated cirrhosis, hepatocellular carcinoma and post-liver transplants were tested using one-way ANOVA. Healthy volunteers with no significant disease from the general population were recruited as controls. Convergent and divergent construct validities were tested in 10 and 14 a priori hypotheses respectively and the correlations were assessed using Spearman’s rank correlation coefficients (p). RESULTS: The culturally adapted questionnaire was tested in 298 HBV patients. The reliability coefficients were excellent with $\alpha > 0.7$ for all scales and acceptable correlation coefficients were obtained for 10 of the 12 scales. Item-to-scale correlations were good with most items highly correlated with their hypothesized scales. For known-group validity, a comparison of mean scores at different stages of the disease showed significantly lower HRQoL scores in cases of more advanced stages of disease in most scales. Convergent and divergent construct validities were supported by the presence of hypothesized correlations between the HQLQ and the EQ-5D domains (8 of 10 hypotheses for convergent construct validity and all hypotheses for divergent construct validity were fulfilled). CONCLUSION: The culturally adapted HQLQ has good validity and reliability, making it a potentially useful outcome measure in the evaluation of HBV patients in Singapore.

PAIN—Clinical Outcomes Studies

SURVEY OF CHRONIC PAIN IN TURKEY

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OBJECTIVES: The present large-scale survey had a main objective of demonstrating the prevalence of chronic pain, but also sought to explore the impact it has on their lives, their perception of the attitudes of others towards their pain, treatments received and the adequacy of treatment. It addressed the following aims: (a) estimating the prevalence of chronic pain in Turkey, (b) quantifying causes of chronic pain, (c) exploring the demographics of chronic pain, (d) exploring the impact of chronic pain on individuals, quality of life and daily activities, (e) understanding current treatment practices and levels of satisfaction with treatment, (f) exploring the attitudes of individuals towards their pain and their experiences of pain, (g) exploring how individuals with chronic pain perceive the attitudes of their families, friends, colleagues and doctors. METHODS: Face to face survey (4036 person, 7 geographical districts of Turkey) was undertaken to explore the prevalence, severity, treatment and impact of chronic pain in Turkey. RESULTS: In-depth interviews with 300 respondents with chronic pain showed: 43% had moderate pain, 20% had severe pain, 37% had suffered with pain for two to 15 years, 39% had been pain because of head and neck, 32% of them had pain because of back, 33% lost job responsibility (demotion), 21% lost their job and 16% changed jobs because of their pain. 20% of them were diagnosed with depression. Two-thirds were taking prescription analgesics: naproxen (34%), metamizol (24%), paracetamol (20%). Aspirin was the most preferred drug for patients. When we compare Turkey and Europe, while 67% of Turkish patients were taking prescription analgesics, in Europe that number was 52%. CONCLUSION: Thirty-seven percent of Turkish adults had pain. 9.5% of Turkish adults had chronic pain—lower than that measured in 18 European countries—seriously affecting the quality of their social and working lives.