them were estimated as 0.46%, 0.13%, 0.13% respectively for the first 3 and 0.06% for the last 4 diseases.

Conclusion This is the first comprehensive prevalence study on rheumatic diseases in such a sample which may reflect Turkish population because of migration in this area from nearly all over Turkey. The study will be maintained up to 3000 subject and presented at Euler 2001 Congress as a completed study.

Supported by Research Fund of Akdeniz University.

THU0254 RISK FACTORS FOR BACK PAIN IN A CROSS SECTIONAL AND IN A ONE-YEAR FOLLOW UP STUDY IN NURSES

M Brzosko, I Fiedorowicz-Fabrycy, J Fliciński, H Przepiera-Bédzak, K Prajs. *Rheumatology, Pomeranian Academy of Medicine, Szczecin, Poland*

10.1136/annrheumdis-2001.798

Background

Objectives To find risk factors for back pain in retrospective study, one year follow-up study, recurrence and first episode of back pain in one year follow-up study in nurses.

Methods The study was performed on 470 nurses of clinical hospital, 92,3% of nurses answered a questionnaire concerning information about low back pain. 358 (82,5%) have answered the questionnaire on the physical activities performed at work and 369 (85,0%) were examined. 87,9% of nurses who answered the first questionnaire have taken part in follow up study. The potential relationship of the investigated 47 variables like financial status, habits, physical activity or work conditions were assessed in multivariate logistic regression model and then the role of significant variables was counted as relative risk with 95% of confidence interval in univariate logistic regression model. For statistical evaluation of the data STATA 5.0 software was used.

Results The multivariate logistic regression analysis did not show any common risk factor for back pain in cross sectional, one-year follow up study, for the first episode or for the reoccurrence of back pain in one-year follow up study. Cycling was a risk factor for back pain in both one year follow-up study and first episode (OR 1,3) and for recurrence of back pain (OR 1,9) and the same applied to work with arms elevated on the shoulder level longer than 1 min an hour. These two variables were the only significant risk factors ($p < 0,05$) for the first episode of back pain in one-year follow up study. Spinal mobility ranges in different planes did not have any impact on first episode of back pain. Age, bringing up children, alcohol drinking, experiencing recurrent diarrheas, abdominal pain, discontentment with own job, limited lateral trunk flexion to the right, pushing heavy objects and both hands lifting weights were risk factors only for reoccurrence of back pain in a one-year follow up study. Bad assessment of the own health was a risk factor of back pain in cross sectional, one-year follow up study and especially for the reoccurrence of back pain in one-year follow up study.

Conclusion There are different risk factors of back pain in retrospective study, one year follow-up study, recurrence and first episode of back pain in one year follow-up study in nurses.

THU0255 A NEW BONE PROGNOSTIC FACTOR IN MULTIPLE MYELOMA (MM): LEVEL SERUM CROSS-LAPS (CTX) AT DIAGNOSIS

¹A Duché, ²X Leleu, ²A Duhamel, ²V Delannoy, ²T Facon, ¹M Brazier. ¹Clinical Pharmacy Laboratory, Amiens, France; ²Hematology Department, CHU Lille, Lille, France

10.1136/annrheumdis-2001.799

Background In MM b2 microglobuline (b2) and chromosome 13 deletion (Ch 13) have demonstrated an adverse prognostic impact on response, duration and survival. Bone turn-over markers are studied in management and follow-up of MM.

Objectives The aim of this study was to demonstrate that a new bone resorption marker, ie. initial serum CTX level at diagnosis, is a potential prognostic factor in MM.

Methods Between March 1990 and June 2000, 122 MM patients were hospitalised in our department. They all have an evaluation of demographic, usual biologic parameters, and an extensive evaluation of prognostic parameters at diagnosis, including b2, Ch 13 and CTX. Serum level CTX were assessed by ELISA test. Event free survival, relapse and death were achieved during follow-up. Descriptive analysis was performed, and correlations were obtained by univariate analysis.

Results descriptive analysis showed: mean age 61 years; men 57%; b2 > 3 mg/l, 45%; Ch 13, 32,5%; C Reactive Protein > 6 mg/l, 35%; stage according to Durie -Salmon (I, II, III) respectively 17.6, 25, 57.4%; IgG, IgA, other Ig respectively 62, 25, 13%; number of bone lesions > 6, 21%, relapse 59%, death 42%. ROC curve didn't permitted to determined ideal threshold for CTX. Median CTX level (CTX = 2470 pmol/l) at diagnosis was correlated to survival and relapse and CTX level at diagnosis (dCTX) was correlated to all prognostic parameters studied in an univariate statistical analysis. DCTX > 2470 pmol/l is correlated to poor survival ($p = 0.0151$) with event free survival at 30 months descriptive analysis showed: mean age 61 years; men 57%; b2 > 3 mg/l, 45%; Ch 13, 32,5%; C Reactive Protein > 6 mg/l, 35%; stage according to Durie -Salmon (I, II, III) respectively 17.6, 25, 57.4%; IgG, IgA, other Ig respectively 62, 25, 13%; number of bone lesions > 6, 21%, relapse 59%, death 42%.

ROC curve didn't permitted to determined ideal threshold for CTX. Median CTX level (CTX = 2470 pmol/l) at diagnosis was correlated to survival and relapse and CTX level at diagnosis (dCTX) was correlated to all prognostic parameters studied in an univariate statistical analysis. DCTX > 2470 pmol/l is correlated to poor survival ($p = 0.0151$) with event free survival at 30 months (versus 60 months). DCTX is statistically significantly associated to sex ($p = 0.0383$), b2 > 3 mg/l ($p = 0.0007$), Ch 13 ($p = 0.0504$), C Reactive Protein > 6 mg/l ($p = 0.0348$), stage according to Durie -Salmon ($p = 0.0015$), number of bone lesions ($p = 0.0330$), poor survival ($p = 0.089$), and relapse ($p = 0.0018$).

Conclusion We demonstrate in this retrospective study that dCTX level appears as a new prognostic factor on survival and relapse. It is associated to other prognostic factors, stage according to Durie -Salmon, and high number of bone lesions. Multivariate analysis must be performed to confirm the powerful of the combination of b2, Ch 13 and dCTX, as prognostic tool to screen patients and manage therapeutic decisions.