PM51

THERAPY WITH CERTOLIZUMAB PEGOL AND OTHER TNF-A INHIBITORS IN ELDERLY PATIENTS WITH RHEUMATOID ARTHRITIS: RESULTS FROM THE CORRONA REGISTRY

Pappas DA1, Etole C1, Bedenbaugh A1, Tamhali P1, Greenberg FD2
1Columbia, New York, NY, USA, 2UCR, UCPharma, Smyrna, GA, USA, 1VUSchool of Medicine, New York, NY, USA

OBJECTIVES: To describe baseline characteristics of elderly patients with Rheumatoid Arthritis (RA) initiating therapy with certolizumab pegol or other TNF-a inhibitors (TNFi).

METHODS: Cross-sectional analysis of RA patients older than 65 years of age, initiating CZP or another TNFi following enrollment in the CORRONA registry. Baseline demographic and clinical characteristics of included patients were presented. Each characteristic was compared between CZP and other TNFi initiators using either Student’s two-sample t-test or the chi-square test.

RESULTS: 1062 initiations of TNFi in RA patients older than 65 years were analyzed: 144 patients (13.6%) received CZP (128.7±28.5%) and 918 patients received other TNFi. Baseline characteristics for CZP initiators (versus other TNFi): age (mean±Standard deviation (SD)) 72.2±4.6 (vs. 72.1±6.3, p<0.05), female 72.8% (vs. 74.6%, p<0.05), disease duration 12.1±9.3 (vs. 13.5±11.3, p<0.05), baseline CDAI 23.8±14.4 (vs. 18.0±12.9, p<0.05), previous therapy with TNFi 40.4% (vs. 30.2% in other TNFi initiators, p<0.026).

CONCLUSIONS: The present descriptive analyses suggest that elderly CZP initiators have similar demographic and clinical characteristics. However, CZP initiators were used more frequently after prior failure of two or more prior biologics (vs 30.2% in other TNFi initiators, p<0.026).

PM51

EPIDEMIOLOGY AND BIOLOGIC TREATMENT PATTERNS OF SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS IN ONTARIO

Al Adba B, Schneider R, Silverman ED
University of Toronto, Toronto, ON, Canada

OBJECTIVES: The prevalence of juvenile idiopathic arthritis (JIA) is approximately 3.3/1000 children and 10-15% have the systemic form (SiJIA). Biologics, specifically anti-IL1 and anti-IL6 therapy have dramatically reduced the prolonged use of corticosteroids and therefore decreased the associated morbidity including growth failure, cataracts, fractures and body image problems. This study aims to determine the prevalence of SiJIA and biologic use in SiJIA in Ontario.

METHODS: All patients seen at the Rheumatology Clinic of the Hospital for Sick Children (SickKids), Toronto with a diagnosis of SiJIA from December 1986 to January 2013 were eligible. Inclusion criteria: Diagnosis confirmed, <1 year follow-up, <1 visit per year and unable to obtain complete medical record. Data for Ontario SiJIA prevalence was estimated through personal communication with all practicing pediatric rheumatologists in Ontario.

RESULTS: The cohort consisted of 268 SiJIA patients which represented 13% of the total JIA cohort. Since 2012, when anti-IL1 and anti-IL6 medications were readily available in Ontario, 123/25 (48%) of these newly diagnosed patients received either etanercept, tocilizumab or secukinumab, whereas 11/21 received etanercept only. In the other 3 pediatric rheumatology centres in Ontario, 9 additional SiJIA patients were diagnosed and 3 received anti-IL1 and 2 anti-IL6. Medication choice was based on the participant’s drug insurance plan, with 72.6% preferring etanercept. The preferred dose was 40 mg/week for etanercept and 50-100 mg/week for tocilizumab. biologics are more commonly given as monotherapy, and initiated in patients with a high disease activity compared to other TNFi.

PM51

STUDY ON MECHANISM OF TYPE 2 DEOIODINASE GENE AND ERK SIGNAL TRANSDUCTION IN KASHIN-BECK DISEASE

Xiong YM, Song RX, Jiao XH, Du XL, Liu JF, Liu X, Chen Q
Xi’an Jiaotong University, Xi’an, China

OBJECTIVES: Kashin-Beck disease (KBD) is an endemic, deformable, and chronic osteoarthropathy prevailing in selenium (Se)-deficient regions, while its pathogenesis remains obscure. Type 2 Deiodinase (DIO2) is an important Se-dependent antioxidant enzyme and there are many polymorphisms in DIO2 gene, among which Thr92Ala of DIO2 has been studied widespread in diseases. In many different cells, ERK signalling pathway plays a role in anti-apoptosis and decreased ERK activity is necessary for apoptosis. Therefore, we investigated possible association between DIO2 Thr92Ala and susceptibility to KBD in a Chinese population. To explore molecular mechanism of cartilage apoptosis and role of Se in prevention in KBD and expression of signal molecules of ERK pathway in controls and KBD patients are detected and Na2SeO3 are added to explore it’s effect on ERK pathway.

METHODS: 218 KBD patients were enrolled in the study and sex matched controls were enrolled and served as KBD and control group respectively. Polymerase Chain Reaction- Restriction Fragment Length Polymorphism (PCR-RFLP) is used to analyze DIO2 Thr92Ala polymorphism. Real-Time PCR is used to detect expression with real time PCR to detect expression of signal molecules of ERK pathway. RESULTS: No difference were found in genotypic and allelic frequency of DIO2 Thr92Ala between KBD and control group (P>0.05). DIO2 mRNA level of cartilage tissue was significantly decreased in KBD patients (0.72 vs. 0.78 and 0.28 fold respectively, P<0.05) compared with controls. CONCLUSIONS: no association was found between DIO2 Thr92Ala polymorphism and KBD incidence. Expressions of DIO2 mRNA in KBD patients decreased significantly compared with controls. Changes of apoptosis-related molecules on ERK signaling pathway in KBD patients significantly might play important roles in molecular biology mechanism of KBD, and Na2SeO3 could promote activation of p erk1/2 and pJNK1/2. This research is supported by National Natural Science Foundation (No. 30672808).