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### PROFILE OF LUMBAR SPINE DEGENERATIVE PATHOLOGY IN RHEUMATOLOGIC CONSULTATION IN NORTHERN TOGO

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**Background:** Degenerative spine pathology is a common reason for consultation in rheumatology. The lumbar spine is the first seat.

**Objectives:** To determine the epidemiological and semiological profile of degenerative lumbar spine damage in Kara.

**Methods:** It was a cross-sectional study based on patient records who had consulted for a degenerative lumbar spine pathology in the rheumatology department of the CHU-Kara (Northern Togo) over a three-year period.

**Results:** Of the 1,767 patients examined during the study period, 745 (42.16%) suffered from a degenerative pathology of lumbar spine. They were 285 men (38.3%), and 460 women (61.7%) H/F ratio of 0.62. Traders (30%), civil servants (12.5%), teachers (9.5%), and housewives (8.7%) were the most affected occupational categories. The average age of patients at the consultation was 50.6 ± 12.3 years, and the average duration of disease progression was 4.3 years ± 1.8 years. The clinical forms of degenerative lumbar spine damage were: common low back pain (194 cases; 26.04%), common lomboradiculalgia by probable disco-radicular conflict (457 cases; 61.34%) and the narrowed lumbar canal (94 cases; 12.62%). Common low back pain was acute in 56.7% of cases. The path of radiculalgia during the probable herniated disc was truncated in 19.2% of cases, L5 in 46.4% of cases, S1 in 32.9% of cases, and L4 in 2.7% of cases. The walking perimeter was less than 500 meters in 48% of patients with narrowed lumbar canal. Signs of degenerative disc disease (536 cases), spondylolisthesis (102 cases) and isthmic lysis (37 cases) were the main radiological lesions observed.

**Conclusion:** Degenerative damage to lumbar spine is dominated in North Togo by common lomboradiculalgia by probable herniated disc.

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**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2021-eular.4234

## Paediatric rheumatology

POS1292

### REAL-WORLD EFFECTIVENESS OF ETANERCEPT AND ADALIMUMAB IN CHILDREN AND YOUNG PEOPLE WITH JUVENILE IDIOPATHIC ARTHRITIS (JIA) WITHOUT UVEITIS

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**Background:** Biologic therapies have revolutionised treatment pathways and outcomes for patients with juvenile idiopathic arthritis (JIA). Although there is a choice of approved TNF inhibitors available as a first biologic, there lacks data to inform treatment choices in clinical practice.

**Objectives:** To compare short-term outcomes on etanercept and adalimumab in children and young people with JIA without uveitis, including drug survival, arthritis disease activity and function ability at 1 year.

**Methods:** All patients starting a first biologic (etanercept/adalimumab including biosimilars) from 2010 in the UK JIA biologic registers (BCRD and BSPAR ETN) were included. Those with systemic JIA or with any history of uveitis were excluded. Data were collected at start of therapy, 6 months, 1 year, and then annually, including patient demographic, disease activity and drug therapy. In this analysis, drug survival and arthritis disease activity / function ability at 1 year (range 3-15 months) were investigated; comparing between therapies using logistic / linear regression, adjusted for propensity deciles.

**Results:** There were 550 patients with outcome data available (to 30 Sept 2020); 384 etanercept, 166 adalimumab. At registration, 68% female, median age 12 years old (IQR 8-14), median disease duration 1 year (IQR 1-4), 72% on concomitant methotrexate. Disease activity was similar between both therapies at baseline and one year. At one year, 70% were still on biologic therapy; most stopping therapy for ineffectiveness (45%), adverse events (31%), or patient / family choice (15%). Inactive disease and minimal disease activity was achieved in 26% and 46% respectively, 48% achieved a minimally clinical important improvement in their functional ability (CHAQ improvement >0.13).

|   | All Patients  | Adalimumab          | Etanercept    |
|---|---------------|---------------------|---------------|
| <b>N</b>  | <b>550</b>    | <b>166</b>          | <b>384</b>    |
| <b>Females</b>  | 68%           | 59%                 | 71%           |
| <b>Age (years), median (IQR)</b>  | 12 (8-14)     | 12 (10-14)          | 11 (8-14)     |
| <b>Disease duration (years), median (IQR)</b>                           | 1 (1-4)       | 1 (0-3)             | 1 (1-4)       |
| <b>ILAR</b>   |               |                     |               |
| Persistent oligo  | 9%            | 6%                  | 11%           |
| Extended oligo  | 20%           | 14%                 | 23%           |
| RF negative   | 37%           | 32%                 | 39%           |
| RF positive   | 11%           | 11%                 | 12%           |
| Psoriatic   | 5%            | 8%                  | 4%            |
| Enthesitis-related  | 16%           | 27%                 | 11%           |
| Undifferentiated  | 1%            | 2%                  | 1%            |
| <b>Concomitant oral steroids</b>  | 16%           | 20%                 | 15%           |
| <b>Concomitant methotrexate</b>   | 72%           | 84%                 | 66%           |
| <b>Follow-up time, years</b>  |               |                     |               |
| Median (IQR)  | 2.5 (1.4-3.8) | 2.1 (1.2-3.1)       | 3.0 (1.6-4.0) |
| Min-Max   | 0.4 - 8.2     | 0.4 - 7.3           | 0.4 - 8.2     |
| <b>Drug Survival</b>  |               |                     |               |
| Still on drug at one year   | 70%           | 67%                 | 71%           |
| Still on drug at two years  | 47%           | 50%                 | 46%           |
| <b>CHAQ</b>   |               |                     |               |
| Baseline, mean (SE)   | 0.9 (0.04)    | 0.8 (0.06)          | 1.0 (0.04)    |
| One Year, mean (SE)   | 0.7 (0.03)    | 0.5 (0.06)          | 0.7 (0.04)    |
| Change, mean (SE)   | -0.2 (0.04)   | -0.2 (0.06)         | -0.2 (0.04)   |
| Regression coef (95% CI)  | -             | -0.09 (-0.2, 0.04)  | Ref           |
| PD Adjusted coef (95% CI)   | -             | -0.08 (-0.2, 0.07)  | Ref           |
| <b>MCID (CHAQ)</b>  |               |                     |               |
| Proportion achieved   | 48%           | 48%                 | 48%           |
| OR (95% CI)   | -             | 1.0 (0.6, 1.5)      | Ref           |
| PD Adjusted OR (95% CI)   | -             | 1.2 (0.8, 1.9)      | Ref           |
| <b>JADAS</b>  |               |                     |               |
| Baseline, mean (SE)   | 14 (0.4)      | 14 (0.7)            | 14 (0.4)      |
| One Year, mean (SE)   | 5 (0.3)       | 4 (0.5)             | 6 (0.3)       |
| Change, mean (SE)   | -9 (0.4)      | -9 (0.7)            | -8 (0.5)      |
| Regression coef (95% CI)  | -             | -1.1 (-2.3, -0.01)* | Ref           |
| PD Adjusted coef (95% CI)   | -             | -1.0 (-2.8, 0.8)    | Ref           |
| <b>Inactive Disease (JADAS&lt;1)</b>                                    |               |                     |               |
| Proportion achieved   | 26%           | 32%                 | 24%           |
| OR (95% CI)   | -             | 1.5 (1.0, 2.4)      | Ref           |
| PD Adjusted OR (95% CI)   | -             | 1.5 (0.9, 2.4)      | Ref           |
| <b>Minimal Disease Activity (MDA) [excludes enthesitis-related JIA]</b> |               |                     |               |
|   | N=473         | N=121               | N=352         |
| Proportion achieved   | 46%           | 49%                 | 45%           |
| OR (95% CI)   | -             | 1.2 (0.8, 1.9)      | Ref           |
| PD Adjusted OR (95% CI)   | -             | 1.2 (0.8, 2.0)      | Ref           |

Childhood Health Assessment Questionnaire (CHAQ), confidence interval (CI), International League Against Rheumatism (ILAR), interquartile range (IQR), odds ratio (OR), propensity decile (PD), rheumatoid factor (RF), standard error (SE). \*p<0.05

**Conclusion:** This is the first comparative effectiveness analysis of adalimumab and etanercept within UK children receiving TNFi therapies for JIA. Despite large patient numbers, there was no evidence of difference between adalimumab and etanercept regarding arthritis disease control or treatment persistence. For children without uveitis, both adalimumab and etanercept can be considered as effective treatment options for children and young people with JIA.

**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2021-eular.186

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### RISK FACTORS OF NON-PROTECTIVE LEVELS OF ANTIBODIES TO VACCINES IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS

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