SUCCESSFUL EVALUATION OF A PREDEFINED SET OF ANATOMIC SITES IN THE PELVIS OF PATIENTS WITH POLYMYALGIA RHEUMATICA SHOWING EXTRACAPSULAR INFLAMMATION AS VISUALIZED BY CONTRAST ENHANCED MAGNETIC RESONANCE IMAGING:

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Background: The diagnosis of polymyalgia rheumatica (PMR) is based on a thorough clinical evaluation of the patient - including exclusion of other diseases, since there is no decisive diagnostic test. A characteristic pattern of extracapsular inflammation in the pelvis of patients with PMR as assessed by contrast enhanced magnetic resonance imaging (MRI) has been recently described (1)

Objectives: To evaluate the performance of a predefined set of anatomic sites in the pelvis of patients with PMR vs. controls.

Methods: A total of 120 pelvic MRI scans of patients who had presented to our tertiary center with pelvic girdle pain in the last 3 years, including 40 patients with an expert rheumatologist diagnosis of PMR and 80 controls with other reasons of pelvic pain was evaluated by 3 radiologists blinded to clinical diagnosis and patient demographics. The experts scored the presence or absence of contrast enhancement at 19 predefined tendinous and capsular pelvic structures. Different patterns of involvement were compared and statistically evaluated by ROC analysis. The experts were also asked to calculate inter- and intraobserver agreement.

Results: Mostly bilateral peritendinitis and capsulitis including uncommon sites such as the proximal origins of the muscles rectus femoris and adductor longus were found almost exclusively and, thus, typically in PMR patients: the difference in the mean number of sites showing contrast enhancement was significantly different with 13.4±2.7 for PMR vs 4.0±2.3 for controls. A cut-off of ≥10 inflamed sites discriminated very well between the groups resulting in a sensitivity of 95.8% and specificity of 97.1%, respectively. Concentrating on the most frequently involved anatomic sites bilateral inflammation of proximal M. rectus femoris or adductor longus tendons together with at least 3 other bilaterally inflamed sites performed even better with a sensitivity and specificity of 100% and 97.5%, respectively.

Conclusion: This study strongly confirms that the previously described pattern of extracapsular pelvic inflammation as assessed by contrast enhanced MRI is very typical for patients with PMR. In addition, the high sensitivity and specificity of the set of anatomic sites evaluated suggest their definite potential for use as a confirmatory diagnostic test.

REFERENCE:

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GRASSROOTS CAMPAIGN FOR DUTCH RMD-FRIENDLY MUNICIPALITIES

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Background: Following the decentralisation of healthcare in 2014, Dutch municipalities were assigned a key role in providing healthcare support to local residents. ReumaNederland used the 2018 council elections to start a campaign to raise awareness for RMD-friendly council policies.

Objectives: The campaign aimed to raise awareness for suitable RMD-healthcare policies across municipalities.


BY CONTRAST ENHANCED MAGNETIC RESONANCE IMAGING OF ANATOMIC SITES IN THE PELVIS OF PATIENTS WITH POLYMYALGIA RHEUMATICA SHOWING EXTRACAPSULAR INFLAMMATION AS VISUALIZED WITH POLYMYALGIA RHEUMATICA SHOWING OPPORTUNITIES TO IMPROVE DIAGNOSTIC ACCURACY.

OP0321-PARE

A NOVEL APPROACH TO REACH PATIENTS FOR EDUCATIONAL PURPOSES – VIRTUAL CONFERENCE REUMANET

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Background: Every two years, ReumaNet organises a physical conference for patients addressing various topics of rheumatic and musculoskeletal diseases (RMD). Initially, individually attended, the event was considered to be very successful. The results were very promising, having over 1.300 registrations (compared to 200 registrations at a physical event). The social media reach was over 140,000 and the event also increased the visibility of the Facebook page of ReumaNet. On the platform itself there were over 5000 video views and over 3000 visits of the virtual booths of partner organisations. General satisfaction rates were high: 96% of the visitors indicated they were most likely to visit a similar event in the future. Over 80% gave the event a 4+ star rating out of 5.

Conclusion: This event was considered to be very successful. The results showed that this virtual event exceeded our expectations and had an impact on the visibility of our organisation via social media. This type of event has been expanded towards sister organisations in rheumatology, such as the Belgian organisation for healthcare professionals and can serve as an innovative way for other European patient organisations to attract new profiles and increase awareness of RMDs among the broad public.


FRIDAY, 14 JUNE 2019

The benefits of involving patients in health technology assessment

OP0322-PARE

GRASSROOTS CAMPAIGN FOR DUTCH RMD-FRIENDLY MUNICIPALITIES

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Background: Following the decentralisation of healthcare in 2014, Dutch municipalities were assigned a key role in providing healthcare support to local residents. ReumaNederland used the 2018 council elections to start a campaign to raise awareness for RMD-friendly council policies.

Objectives: The campaign aimed to raise awareness for suitable RMD-healthcare policies across municipalities.
OP0323 USEFULNESS OF UNIVERSAL ANTINUCLEAR ANTIBODIES TESTING IN EARLY ARTHRITIS REFERRALS

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Background: The CHUC Early Arthritis Clinic, founded in 2011, intends to provide a prompt response to patients with recent onset of symptoms suggestive of an inflammatory rheumatic disease (IRD). By research protocol, all patients are screened at baseline for the presence of antinuclear antibodies (ANA). An analysis was performed to evaluate the usefulness of universal ANA testing in these patients.

Objectives: To evaluate the prevalence and clinical correlates of ANA positivity in early arthritis referrals.

Methods: A retrospective study of consecutive patients referred to the Early Arthritis Clinic between 2011 and 2016 was conducted. Referral is based on the fulfillment of specific criteria: presence of arthritis or clinically suspected arthralgia beginning in the previous 12 months plus suggestive laboratory abnormalities (rheumatoid factor, C-reactive protein or erythrocyte sedimentation rate). ANA titer (positive = 1:160) and cellular staining patterns were assessed by indirect immunofluorescence (Hep-2 cells). Positive (PPV) and negative predictive values (NPV) of an ANA positive test for the diagnosis of an IRD or an ANA-related rheumatic disease (ARD) were determined, along with PPV for the other referral criteria.

Results: 207 patients were included in the analysis (64.3% female, aged 53.9 ± 18.2 years). The diagnosis of an IRD was confirmed by the rheumatologist in 61.4% of cases, including 11.8% cases of ARD. The most prevalent diagnosis was rheumatoid arthritis (21.7%), followed by unclassified arthritis (8.7%), psoriatic arthritis, osteoarthritis and fibromyalgia (8.8% each). The prevalence of ANA positivity in our cohort was 64.2%, most frequently in low titer (1:160 in 33.8%, 1:320 in 19.3%, 1:640 in 8.7% and 1:1280 in 24.2%) and with a dense fine speckled pattern (45.1%). ANA-positive patients were older (53.7 ± 17.9 versus 47.9 ± 18.5, p<0.05), more likely to have an IRD (72.9% versus 40.5%, p<0.001) but not an ARD (9.0% versus 41%, p=0.186). PPV for ARD was 9.0% for the 1:160 cut-off titeration and 15.6% for the 1:320. Squeeze test (PPV 13.5%), erythrocyte sedimentation rate (PPV 9.9%) and rheumatoid factor (PPV 20.0%), as referral criteria, all performed better at predicting an ARD, compared to an ANA positive testing.

Conclusion: Early Arthritis Clinic referred cohort has a high prevalence of IRD but a low prevalence of ARD which explains the poor predictive value of ANA in this setting, especially when considering lower titers and when compared with some specialties, especially in Early Arthritis Clinics. ANA testing rate (45.1%) in our setting is justified, given its costs and added value. Studies designed to optimize the use of ANA in this context are warranted.

Disclosure of Interests: None declared


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Cannabis for arthritis: Hype or hope?

OP0324 CANNABIDIOL ELEVATES INTRACELLULAR CALCIUM AND INDUCES APOPTOSIS IN HUMAN ARTICULAR CHONDROCYTES

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Background: Osteoarthritis (OA) is a major public health problem among the increasing aged and obese population, therefore development and investigation of new therapeutic is a major issue of OA research. Endocannabinoids (ECs), cannabinoids derived from the Cannabis sativa plant and synthetic cannabinoids have been attributed anti-inflammatory, antitmigrogenic, analgesic and psychoactive effects. Over recent years increasing interest in the EC system as a target for therapeutic treatment of joint diseases has emerged [1].

Objectives: Cannabidiol (CBD) is the most abundant non psychoactive compound of Cannabis sativa extracts and has been shown to have anti-arthritic potency in animal models [2, 3]. In the present study we investigated the effects of CBD on the cell viability and Ca²⁺ homeostasis in human articular chondrocytes.

Methods: Cell viability, discrimination of intact, apoptotic and necrotic cells and caspase 3/7 activity were determined by Resazurin assays. Annexin-V/7-AAD staining followed by flow cytometry and caspase-Glo 3/7 assay respectively. Intracellular Ca²⁺ was monitored by time-lapse fluorescence imaging. The perforated whole-cell patch clamp technique was used for measuring the cell membrane potential. Western blot analysis was performed for the quantification of Erk1/2 phosphorylation.

Results: CBD/i2 and human primary chondrocydes showed a significantly reduced viability with an apoptosis maximum at 10μM CBD after treatment with rising amounts of CBD. This apoptotic effect was accompanied by a depolarization of the cell membrane. This increase of Ca²⁺ was abrogated, when Ca²⁺ was omitted from the bath solution indicating an influx of extracellular Ca²⁺ rather than depletion of internal stores. Several blocking substances were tested to identify the channel/receptor responsible for this Ca²⁺ influx. Cannabiond receptor1 (CB1) antagonist AM251 significantly inhibited the Ca²⁺ influx triggered by CBD. Moreover, preincubation of chondrocydes with AM251 significantly reduced the toxic effects of CBD. Looking for mediators of the apoptotic CBD effect downstream of the CB1 receptor enhanced Erk1/2 phosphorylation could be detected. However this Erk1/2 activation proved to be unaffected by CB1 receptor blockade.

Conclusion: Micromolar concentrations CBD induce apoptosis in human articular chondrocytes. CBD also triggers an influx of extracellular Ca²⁺ and potentiates Erk1/2 phosphorylation. The apoptotic effects are at least partially...