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RHEUMATOLOGY ADVANCED PRACTICE PROVIDERS

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Comorbidities of Spondyloarthropathies

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Comorbidities of Spondyloarthropathies

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Faculty Disclosures

- Shannon Ghizzoni, PA-C, MSBS
  - Speaker: Abbvie, Amgen, Genentech
- Audrey Gibson, PA-C, MsPAS
  - Speaker: Sanofi Genzyme, Abbvie

Comorbidities of SpA

- Increased burden on the SpA patient [1, 2]
  - Increased mortality
  - Poorer work outcomes
  - Worse physical functioning
  - Higher disability
  - Excess disease activity
  - Higher healthcare costs [2]

Comorbidities of SpA

- Extra-articular manifestations vs comorbidities
  - Uveitis, psoriasis, IBD (EAM)
  - CVD, osteoporosis, depression (CM)
- Comorbidities vs risk factors?
  - Comorbidity or risk factors for a comorbidity
  - Hypertension, smoking, hyperlipidemia, diabetes, obesity

Comorbidities in SpA

- Higher risk of certain comorbidities in SpA
  - Hypertension
  - Hyperlipidemia
  - Cardiovascular disease
  - Malignancies
  - Metabolic syndrome
  - Depression/Anxiety
  - Osteoporosis
  - Diabetes
  - Infections
  - Obesity

Comorbidities in SpA

- ASAS-COMOSPA study[3]
  - Cross-sectional international study with 22 participating countries (from four continents) including 3984 patients with SpA
    - Most frequent comorbidities: osteoporosis (13%) and gastroduodenal ulcer (11%)
    - Most frequent risk factors: hypertension (34%), smoking (29%), and hypercholesterolemia (27%)
    - Higher number of comorbidities is associated with higher BASDAI and BASFI scores.

- Meta-analysis of 36 studies reporting prevalence of comorbidities in axial SpA involving a total of 119,427 patients [10]
  - Most prevalent comorbidities were hypertension (22.3%), any infection (18.3%), hyperlipidemia (17.1%), obesity (13.5%) and any cardiovascular disease (CVD, 12.3%)

Cardiovascular Disease

- Multi-factorial
- Traditional risk factors + systemic inflammation
- Modifiable vs non-modifiable risk factors
- Treatment related (NSAIDs) ?

Cardiovascular Disease

- #1 cause of increased mortality in AS patients [4]
- Increased risk of MI and stroke
- Increased risk of VTE
- Increased risk of heart failure

Cardiovascular Disease

- Risk factors and other comorbidities
  - Increased arteriosclerosis
  - Higher rates of diabetes, hyperlipidemia, hypertension, smoking, obesity
  - Higher rates of metabolic syndrome (5)
    - PsA>AS

Cardiovascular Disease

- Risk factors and other comorbidities
  - Diabetes and insulin resistance (6)
    - Disease duration and positivity for human leucocyte antigen-B27 were independently associated with a higher insulin resistance
    - SpA-related diseases are related with beta-cell dysfunction
    - Mildly higher risk of diabetes in AS (7)
    - PsA patients have a 6-20% higher risk of diabetes (8)
      - Women with more severe disease seem to have higher risk
      - Elevates levels of adiopokines (ex: TNF-alpha, adiponectin and omentin)

Cardiovascular Disease

- Risk factors and other comorbidities
  - Obesity
    - One of the most prevalent individual comorbidities in axial SpA
    - Higher BMI has been associated with more new bone formation including syndesmophytes, enthesophytes, higher modified Stoke Ankylosing Spondylitis Spinal Score, and more peripheral arthritis (9)
  - Hyperuricemia?(6)
    - Radiographic SpA > non-radiographic SpA

Evaluation and Monitoring

- Ask and encourage smoking cessation
- Periodic cardiac risk factor assessment
- Recognizing higher risk of certain comorbidities in different spondyloarthropathies (ex. PsA vs AS vs IBD-related arthritis)
- Encourage healthy lifestyle including diet and exercise as well as regular follow up with primary care physician
- Optimizing disease management and controlling disease activity

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Comorbidities in SpA

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Osteoporosis in Spa

- Prevalence
  - prevalence of osteoporosis in radiographic axSpA (r-axSpA) 19-50%
  - Predisposing factors: disease duration and ankylosis of the spine
  - has also been reported in early forms of the disease
    - inflammation, systemic or local, defined by bone marrow edema on MRI and male gender

Osteoporosis in Spa

- Fractures in Spa
  - Controversial: it has been reported that 30–40% patients with SpA present with VFs
    - 7x greater than the general population
  - Risk factors: difficulties with peripheral vision, limited range of spinal mobility and higher risk of fall, disease duration, hyperkyphosis

Osteoporosis in Spa

- Treatments
  - NSAIDs: protective effects on hip bone loss in patients, clinical fracture were decreased
  - TNFs: TNF use was significantly and independently protective for bone loss

Osteoporosis in Spa

- Management
  - No specific recommendations
  - Least once an assessment of their bone mass
    - Hip DXA is preferred method
  - Control Inflammation
  - Specific anti-osteoporotic drugs should be used only in patients with severe osteoporosis and/or prevalent fractures.

Depression in Spa

- Associated with
  - Higher disease activity
  - Functional impairment
  - Poor treatment response
  - Poor quality of life in patients with musculoskeletal disorders

Depression in Spa

- Mild depression is common and estimated to be present in about 40% of patients with AS
- Evidence of moderate/severe depression in about 15% of patients with AS or PsA

Depression in Spa

- Risk factors: Female sex, exposure to stressful life events, and socioeconomic deprivation
- Risk of depression in patients with AS or PsA increases over time
- Disease-related factors that may increase the risk of depression, such as disease activity, quality of life, sleep and fatigue
- Evidence suggests a potential causal role for inflammation in depression

Depression in Spa

- Management
  - Actively assess and treat depression
  - Routine assessment of depression using validated tools such as the PHQ-9 questionnaire
  - Optimizing disease control
  - Mild depression: non-pharmacological interventions such as guided self-help, exercise or psychotherapy
  - Moderate to Severe: antidepressant
  - Complex or high-risk patients: Psychiatric referral

Infections in Spa

- Data is limited
- Several metanalysis have showed no difference
- Management
  - Vaccination: prior to planned immunosuppression, with seasonal influenza and pneumococcal vaccination strongly recommended
  - Non-optimal rate of vaccination in these patients
    - 17.3% received a pneumococcal vaccination within the past 5 years
    - 30% received an influenza vaccination within the past 12 months

Malignancies in Spa

- Overall prevalence of any type of cancer was 3.0%
  - Cervical cancer being the most prevalent, 1.2%
- Some studies have reported that the risk for malignancy between patients with SpA and the general population is comparable

Malignancies in Spa

- Risk of colorectal cancer (CRC) is increased in patients with IBD, which can coexist with SpA; however, the increased risk of CRC in these patients has not been confirmed
- Increased risk of skin cancer has been reported in patients using p-UVA and UVB therapy, which is widely used in patients with psoriasis.
- Patients with SpA with IBD may have a greater risk of gastrointestinal cancer. Crohn’s colitis and ulcerative are associated with a high risk of CRC

Malignancies in Spa

- Management
  - Screening recommendations for patients with SpA are identical to the general population
  - Exceptions: IBD-associated CRC and skin cancer.
    - Crohn’s disease should begin 8–10 years after the diagnosis at intervals that are determined by risk factors.
    - For skin cancer, pt’s with DMARDs should visit a dermatologist one per year.

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Thank you.