

## **Axial Spondyloarthritis (AxSpA) Essay: Symptoms, Diagnosis, And Management - Case Study.**

Axial spondyloarthritis (SpA) is a chronic inflammatory disease. It affects the axial skeleton predominantly. This type of SpA includes both radiographic and non-radiographic SpA is called AxSpA or ankylosing spondylitis. These are considered as the two stages of one pathology (Adshead et al., 2020). The patient is presented with the pelvis and low back pain that is chronic with morning stiffness, (Barnett et al., 2020), like in this case study. However, other aetiologies of pain give the symptoms of intense back pains. This makes the diagnosis of SpA to be challenging to clinicians during the disease's early stages. Seronegative Spondyloarthropathy is a rheumatic disease that involves the sacroiliac joint. In this study, the case illustrates the effective and safe care management and successful examination of axial spondyloarthritis patient in practitioner physiotherapy advanced clinic that applies NICE guidelines (Barnett et al., 2020). SpA affects mostly persons in the third decade. Due to endometriosis, it is rampant in women than in men.

It also demonstrates the relationship between advanced practitioners and GPs in physiotherapy of muscoskeleton in NHS (Adshead et al., 2020). Based on the patient's personal history, the description demonstrate the appropriate threshold of SpA (Manarad et al., 2021), which was worsened through inactivity of the body by having stiffness for about 30 minutes to one hour early in the morning. NSAIDs and body exercise improved the onset of SpA on the patient. This improvement is according to the criteria for back pain inflammation by Spondyloarthritis international society's assessment. Axial SpA is suggested to begin in the third decade. In this case, the patient is 39 years (McCrum et al., 2019). It is characterized by irritable bowel syndrome, Reiter's syndrome, Gluten allergies, and Psoriasis disorder (Derakhshan et al., 2020), as illustrated in this case study. This occurs within three months with the absence of the signs of dactylitis, arthritis, and enthesitis.

This can be confirmed through MRI scans and blood tests, (McCrum, 2020), which provide an effective plan for treatment and better outcomes to the patient. SpA pathology cause significant disabilities to patients in the third-decade ages like in this case study; therefore, early management and diagnosis are essential (Manara et al., 2021). If the diagnosis of SpA is delayed, the outcomes worsen, such as changes in bone pathology, spinal mobility, and function due to delayed treatment initiation to block factors of tumour necrosis which worsen to cause disability and impaired movements. NICE guidelines give the required interventions to bring about care and safety of the patient based on the best outcomes of the clinical practices (Derakhshan et al., 2020). The growth of prevalence of arthritis in several countries demonstrates limited, timely access to rheumatic clinical care.

There is an increased need for orthopaedic and rheumatic care, which has led to emerging models of care that entail extended practitioner roles such as nurses, physiotherapists, and occupational therapists (Adshead et al., 2020). The comprehensive role Practitioners are skilled professionals who provide rheumatic or musculoskeletal care as first contact givers. They also make a diagnosis, prescribe medications and infiltrations, and triage candidates of surgery (Derakhshan et al., 2020). For this reason, the Advanced clinician practitioner in arthritis care has established training programs to train occupational therapists and physiotherapists to be of assistance in rheumatic care. The services given by these specialists are based on evidence-based nursing practice to ensure patient safety by providing suitable interventions for better outcomes that are person-centred (Barnett et al., 2020). In this case, the patient takes her dog on a walk to exercise the bones of which she feels pain when not exercising.

**History :** The referral from the GP to the APP indicated that the patient is 39 years old characterized by disabilities indicated by morning stiffness, strained movements, low back pain (Adshead et al., 2020). In this case study, the patient experiences lower back pain associated with his greater weight and a full-time job in an office (McCrum et al., 2019). The patient has the responsibility of taking care of her children singly and elderly parents. The patient has to be done counseling to put up with emotional stress. During the physical examinations and assessment, the APP has to offer psychological support to the patient through advice and how to cope with the family responsibilities at the same time ensuring safety and recovery (McCrum, 2020). The APP has to propose the kind of activities the patient has to engage in and those to avoid to ensure the back pain is managed to prevent further injuries. The patient in physical assessment exhibits a gluteal area that is injured due to a fall on the buttock of the right side, leading to burning sensation and pain localized in the spinal end and swollen toes. The APP should issue the patient with both verbal and non-verbal cues on how to handle the pain by use of non-steroid medications and exercise of the injured leg to induce movements (Adshead et al., 2020). The patient must be advised to increase bones movement to exercise the joints to reduce the morning stiffness and the inabilities to twist the lower limbs with pain that makes her awake every night. This may help the patient's flexibility to increase the twisting of the limb, thus preventing the disabilities that may arise later. It shows that during the day, the patient is engaged in activities that decrease the pain; however, at night, it is a period of inactivity which increases the pain of the body bones. Also, medications have to be prescribed by the APP to contain the lower back symptoms (Barnett et al., 2020). Based on evidence-based practice, the prescription must be documented clearly to instruct the patient on how and when to take the medications. NSAIDs also improve the morning stiffness pain by relieving the pain thus

preventing the possibility of occurrence of disabilities and deformation on the patient(Adshead et al., 2020). The patient has to communicate without hurting her emotions about her body weight, which brings about painful knees during exercise(Adshead et al., 2020). Slimming exercises and supplements have to be induced to reduce the weight to walk her dog peacefully without getting painful knees that stop the entire practice.

SpA pathology is related to low back pain which affects almost 1% of the population of the US. It is characterized by patterns of inflammatory back pain, IBP, which entails insidious onset before 45 years with morning stiffness which can be improved through exercise rather than rest(Adshead et al., 2020). It has a good response to NSAIDs. Other features to be checked in IBP patients include enthesitis, peripheral arthritis, dactylitis, human leukocyte antigen positivity for B27, IBD and family history. It is of critical importance to recognise and diagnose SpA early enough(Adshead et al., 2020).

The patient has to discuss through shared decision making about the medication she is comfortable with that reduces the pain without side effects and contraindications. The private physiotherapy and sessions of manipulations have to be encouraged for the patient as they positively impact the patient's pain management. The return of the pain indicates this if physiotherapy is stopped(McCrum et al., 2019).

The patient exhibits lumbar flexions due to stiffness pain which has to be managed by NSAIDs. Failure to intervene may lead to disabilities that may inhibit the movements of the patient. Also, the physiotherapy and manipulation exercises must be continuous to avoid the return of sciatica pain(Adshead et al., 2020).

NSAIDs are Nonsteroid anti-inflammatory drugs that reduce pain in patients. In this case, it is demonstrated that NSAIDs relieved morning stiffness in the patient dramatically. They include ibuprofen, aspirin, and other non opioid analgesics (Derakhshan et al., 2020). For severe pain, NSAIDs are proposed according to the NICE guidelines than opioids like morphine. NSAIDs include class such as naproxen and ibuprofen, which is widely used to relieve pain. Anti-inflammatory drugs reduce inflammation by affecting sensitivity and nerve stimulation to reduce heat, irritation, pain, and swelling(Navarro-Compán., 2021). They also reduce fever and high temperature in patients. This can be effective in patients with midnight pain. The drug's action produces less prostaglandin on the inflammatory site, thus reducing pain in the damaged tissue by blocking COX enzymes responsible for blood clotting (McCrum et al., 2019). The drugs should therefore have anticoagulating features. Some NSAIDs such as aspirin need not be taken daily because of the health risks that outweigh the

benefits of preventing artery diseases that lead to stroke and heart attack. NSAIDs relieve symptoms of flu and cold but do not kill the virus of the illness.

Other medical history of the patient according to the diagnosis included overweight, chronic lower back pain, fall on her right buttock, localised end of spine pain, swelling Right big toe, Neuropathic medication for sciatica pain that improved the pain of paraesthesia, painful knees when walking her dog and she had had manipulation sessions and physiotherapy that improved her sciatica pain that returned immediately she stopped the physiotherapy. The subjective findings included the pain induced by physical exercises that is eased with NSAIDS , physiotherapy and gentle movements when going for shopping. Based on the prevalence of the low back pain, the incidence of arthritis is ruled from further findings. In the past, she had irritable bowel syndrome, Reiter's syndrome, Gluten allergies and Psoriasis disorder accompanied with chronic back pain . The APPs diagnosis with X-ray showed clear with no IVD and the blood test indicated negative inflammatory markers with low level of Vit D

NSAIDs are contraindicated to alcohol intake as the interaction of alcohol with the drug causes gut irritation and internal bleeding of the stomach. It is essential to use only one kind of NSAID as mixing may lead to adverse effects. It contradicts the allergies, asthmatic, breastfeeding, and pregnant and heart problem patients (Derakhshan et al., 2020). NSAIDs' most common side effects include headaches, dizziness, gut complaints and indigestion, drowsiness and fluid retention, kidney, liver, circulation, and heart are rare effects. They also increase blood pressure that may cause stroke and heart attack, unlike aspirin (Barnett et al., 2020). Patients with heart problems should be prescribed aspirin to prevent heart attack and stroke during pain management to ensure the safety of the patients. Also, it leads to gastrointestinal bleeding due to the reduction of prostaglandin, which helps to produce mucus on the intestinal lining. Reduction in number exposes the stomach to acid, thus the development of peptic ulcers. The drugs should not be taken for long term or high doses (Manara et al., 2021).

Objective examination/ Physical examination and findings.

In objective and physical examination of the patient, lumbar flexion is limited by pain due to stiffness, right and left rotation limited by end of spine pain and burning, pain on groin, 40 straight rise of the leg due to groin and gluteal pain. The patient was able to stand on heels and tiptoes but could not squat bilaterally due to gluteal burning. There is no groin tenderness this implied degeneration of lumbar arthritis due to nerve irritation and bulge of traumatic disk. This calls for differential diagnosis for sacroiliac joint Spondyloarthropathy, hip arthritis and gluteal tendinopathy.

The alignment of the bones is the critical factor for arthritis, disability and pain in patients. There has to be the employment of evidence based practice in assessment, such as extensive set-up and equipment in the clinical settings (Manara et al., 2021). A range of joint movement techniques has to be used to assess the flexions. This can be considered through the determination of the patient's weight. The APP has to advise the patient to engage in motion exercises such as walking the dog every day to improve the joint flexions. This would help to bring about clear communication to the patient on the kind of activities to engage in depending on the strength of the muscles. This can also be measured using dynamometers to quantify the plantar flexion and dorsiflexion power of the muscles. Joint proprioception has to be studied to increase risks of falls, injury, and joint functioning. Gait analysis for joint motion dynamic assessment is done (Derakhshan et al., 2020). This establishes the displacement and angles of the joints and muscles that bring about lower back pain. Although costly, they provide reliable movement measures for the joints.

The patient has to engage in balance tests such as one leg tasks to evaluate the deficits in balance. The centre of pressure is identified during the assessment. The foot structure also determines the hip and knee movement ranges, demonstrated in the case-patient. The diagnosis exhibited a VAS 7/10 at night and morning and during day time, 3/10. Scored a mild risk on STARTbavk stool and 31% Ostwestry Disability index. Due to tight time, Roland Morris Questionnaire was used in this case study. This exhibited no red flags record according to IFOMPT, malignancy infection and spinal fracture based on the low back pain prevalence (McCrum et al., 2019).

This determines both static and dynamic tasks of the patients (Derakhshan et al., 2020). Once the symptoms have been assessed, decisions are made on treatment interventions for musculoskeletal conditions to relieve pain by administering NSAIDs, alignment restoration to improve the patient's quality of life through load distribution, mechanics, and motions (Manara et al., 2021). The rehabilitation strategies for rheumatoid arthritis patients include early detection, wellness approaches for self-management and physical activities, and foot interventions such as orthoses. The patient's past medical history included Irritable bowel syndrome, chronic back pain, gluten allergies, psoriasis disorder, Reiter's syndrome which was linked to the examination whose diagnosis results gave no IVD disorder according to X-ray and negative inflammatory markers and low vitamin D from the blood tests (Barnett et al., 2020)

For MSK management, pain treatment improves mechanics such as motions, load distribution, and alignment by reducing symptoms. This case study will consider pain management for the lower back pain, gluteal burning sensations and movements. This returns the patient to desired activities

participation. These interventions target the impairments identified during the assessment of the patient. The person-centred rehabilitation practices include stretching, therapeutic exercises, orthoses, modification of footwear, and manual therapies (McCrum et al., 2019). The stretching activities may be recommended to about 30 minutes of moderate aerobic exercise to strengthen the muscles and flex the joints. This is done by stretching to the point of discomfort or stiffness. Manual therapy involves massage of the trigger point, manipulation, and mobilization of the joints. Manipulations improve muscle activations and range of movements(Adshead et al., 2020) significantly.

The patient has to be advised to combine foot exercise interventions. These activities may include gymnastics such as toe spreading, heel warm-up activities, and other skill games with the toes to improve muscle strength. Tai chi also improves the strength and mobility of joints and muscles in MSK patients. They increase muscle extensor strength and joint flexor. This shows that exercise programs by the patient improve mobility(McCrum, 2020). For the injured toe of the patient, orthoses and footwear modifications have to be used to treat the knee pain.

In pain management, the patient is prescribed NSAIDs such as aspirin to relieve the night lower back pain, and the toe should be fitted with fitting shoes in terms of length and width. The patient must perform the daily flex exercise to ensure joint motions and mechanics (Derakhshan et al., 2020). There should be a schedule of activities to engage in by the patient to exercise the bones. The APP completed STIR with MRI scan with blood tests showing positive anti CCP and HLA-B27. This helps to indicate the level of inflammatory SpA disorders. Afterwards, the patient is referred to a rheumatologist for treatment and injection consultations(Adshead et al., 2020). The injection localized the stiffness and burning pain and resolved the swollen big toe. Injection also controlled the sciatia pain but did not disappear completely.

For evaluation of the advanced practice for MSK, the patient is referred to a rheumatologist for further assessment based on the established assessment results. The patient has to visit the clinic for checkups, and follow-up activities are done to monitor the condition. This ensures that the patient conforms to the prescription, ensuring the patient's safety (Barnett et al., 2020). This can also help establish the side effects of the prescribed drugs through direct expression by the patient on personal experience. Negative interactions call for a change of prescription or further advice on substances to avoid improving the drug's performance in the patient's body (Adshead et al., 2020).

Clear communication between the caregiver and the patient brings improved quality of life by promoting wellness. MRI scans show the nature of joints, the inflammation, and alignment that bring

about sound management of the pain based on the assessment established. The patient has to be communicated with about a healthy diet that improves bone strength and NSAIDs to relieve pain. Blood tests indicate the level and causes of inflammation and the nutrient deficiencies that must be added to strengthen the bones (Derakhshan et al., 2020). Follow-up activities help to monitor the patient's progress through balance tests, pain levels, and monitoring the effects of the NSAIDs on the heart and circulatory system of the patient (Adshead et al., 2020).

## Conclusion

Currently, the studies are still describing and examining the roles of advanced practitioners in MSK through solid evidence that diagnoses the inflammation SpA. This entails the MRI scans by STIR and blood tests to determine the inflammatory cells for a safe and effective disease management plan (Adshead et al., 2020). Based on this case study, the APP shows a positive response to the management as the patient improves dramatically through diagnosis, management, assessment and reassessment practices that are evidence based for rheumatism (Navarro-Compán., 2021). The patient is issued with the correct information through clear communication about the condition, diagnosis, assessment, outcomes expected and management plan for person centred provision of quality and safe services during decision making after assessment. The patient is referred to a rheumatologist to access extensive care for the rheumatoid condition. This study shows agreement between the APP and the rheumatologist assessment that affects advanced patient care to ensure the best care outcomes(Adshead et al., 2020). The symptoms by the APP is forwarded to the Rheumatologist to determine whether the patient has inflammatory arthritis. After confirmation, the patient has prescribed the correct interventions based on clinical decisions of the patient's condition to bring about a sound management plan for interventions.

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