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Original Article

Knowledge of General Practitioner's toward Spondyloarthritis (SpA): A Qualitative Study

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ABSTRACT

Background: Low back pain (LBP) is one of major health problems experienced by 80-85% of patients in their lifetime. Spondyloarthritis (SpA) has become one of the leading causes of chronic LBP but is often undiagnosed. General practitioners (GP) have an essential role in the early diagnosis of SpA.
Aim: To explore the knowledge of GP about SpA from clinical diagnosis and early management and elaborate on each GP's clinical perspective and practice performance.
Methods: A qualitative study that involved 12 GP. All was consented to participate in an in-depth interview with the experts by online meeting with 15-20 minutes duration. Analysis was focused on the definition, classification, clinical manifestation, diagnosis, and early management of SpA in primary care.
Results: All GP were interviewed (12 GP, 9 men, and 3 women; mean age 29.42) with average years in clinical practice was 3.8 years. All GP could describe the definition of SpA. Only a few subjects are aware of the subtype of SpA. Most of the GP could mention chronic back pain as the main SpA symptom, some GP mentioned extra-articular manifestation, but incomplete. All GP understood the current treatment in clinical practice.
Conclusion: GP is aware of SpA, but not all could completely mention the type and clinical entities. In addition, a limited resource for investigation makes a diagnosis of SpA difficult. Current early treatment has been acceptable in clinical practice. A comprehensive understanding of diagnosis and effective early treatment may reduce delayed diagnosis and improve patients' quality of life.

Keywords: general practitioner, primary care, physician, spondyloarthritis, inflammatory back pain

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INTRODUCTION

Low back pain (LBP) is one of the major health problems experienced by 80-85% of patients in their lifetime and is the top of two health problems caused by patients' arrival in primary health care facilities.[1] The prevalence of back pain in Indonesia was approximately 18% in 2018.[2] The incidence of back pain increases with age. One cause of chronic back pain that is often undiagnosed in primary care is Spondyloarthritis (SpA). A SpA is a group of inflammatory rheumatic diseases that involves inflammatory back pain, sacroiliitis, and peripheral arthritis with or without extra-articular manifestation such as uveitis, psoriasis, and inflammatory bowel disease.[3]

Spondyloarthritis must be suspected in patients with >3 months of back pain and age of onset <45 years with the presence of sacroiliitis on imaging plus at least one feature of SpA. The diagnosis delay in SpA patients is estimated to be 7-10 years.[4] The progression of SpA can cause various morbidities that lead to disability and decreased quality of life of the patients.[5,6] Diagnosis delay is somehow caused by several factors, which can be influenced by patients, healthcare providers, health facilities, and the nature of the disease itself. A general practitioner (GP) plays a vital role in the early diagnosis of SpA.[7] Limited knowledge about manifestation or diagnosis can consequently be such barriers to early diagnosis and treatment.

This qualitative study aims to explore the knowledge of SpA from clinical diagnosis to early management and elaborate on each GP's clinical perspective and current practice in primary care.

METHODS

The ethical committee has approved this study from the Faculty of Medicine Universitas Brawijaya Malang. All participants were provided with informed consent before they underwent the study.

Study Design and Participants

This qualitative study aimed to observe the knowledge of GP about SpA. This qualitative study is conducted by a multidisciplinary team constructing a protocol review based on consolidated criteria for reporting qualitative research (COREQ).[8] Qualitative data collection from GP provided informed consent to interview without specific interest or knowledge of musculoskeletal disease and with various years of experience. An in-depth interview was held with a semi-structured interview about the topic of interest by combining open questions and exploring particular answers.[9] Duration of the interview was estimated 18.5 minutes.

Data Collections

Researchers conducted a recruitment process for 12 GP respondents consisting of 9 male and 3 female GPs from August to September 2022. The interview guide consisted of open-ended questions. A pilot interview was conducted to make sure all topics were addressed adequately. Each interview was recorded and then fully transcribed. The transcript was not offered to the GP for validation review.

Topics addressed are (1) approach to patients presenting with chronic back pain (2) the overview of SpA (3) diagnosis approach of patients with SpA in a primary care setting and (4) treatment options in primary care and opinion according to current practice. In line with the interview protocols, 4 main themes were

addressed along with 10 subthemes (Table 1). When analyzing data, a number of themes, subthemes, and patterns were described and exemplified in quotes, as shown in Table 1.

Data Analysis

Data from each of the participants and interviewer were recorded. An approach to content analysis was used to ultimately transcribe and code collected data manually. Transcripts were analyzed independently by two readers. All transcripts were repeatedly read and annotated. [9] Coding system based on ground theory approach, which defined categories and themes of the data. Feedback from the GPs were not requested.

Table 1. Developed Main Themes and Subthemes

Main Theme	Subtheme
1. Daily exposure to low back pain patients	• Frequency and characteristics of LBP patients in daily practice • The perspective of LBP classification
2. Overview of SpA	• Definition of SpA • Subtypes of SpA consist of Axial SpA and peripheral SpA
3. Clinical Manifestation of SpA	• Role of clinical examination
4. Diagnosis of SpA in primary care	• Clues in working up • A perceived barrier in diagnosis
5. Early management of SpA in primary care	• Treatment options for SpA, either non-pharmacological or pharmacological • Further treatment

RESULTS

Participant Characteristic

Twelve GP was invited and agreed to participate by signing the informed consent. The characteristics of the subjects are presented in Table 2. The mean age of subjects was 29.4 years old, while the mean duration of years experienced as GP from the subjects was 3.8 years. Most of the subjects worked in primary health care (58.3%), and 91.7% of subjects were aware of the SpA.

Table 2. Baseline Characteristics of GP

Characteristic	
Age (years), mean	29.4
Gender (%)	
Men	75
Women	25
Workplace as GP (%)	
Hospital	33.3
Primary Health Care	58.3
Individual Clinic	8.3
Years in practice (years), mean	3.8
Awareness of SpA (%)	
Aware	91.7
Not aware	8.3

*. GP, General Practitioner

Table 3. Synthesis of GP Knowledge toward SpA by illustrative quotes

Main Theme	Quote
1	• D01: “We have a lot of cases of back pain especially chronic back pain during my practice since my workplace was in rural areas, patients mostly work as manual labors. The LBP predominantly affected from ergonomic cause."
2	• D01: “I don’t memorize the major type of back pain but I could make an approach through sites of the back pain such from muscle, bone – spondylolisthesis, spondyloarthritis, nerve and I could also make such neuropathic back pain from certain dermatome."

	• D03: "If patients present with back pain as chief complaint, I will be more focused on history taking and physical examination. I ask whether he/she can do work, characterize the pain either intermittent or continuous, which aggravates or alleviates – work or rest. During the physical examination, I check the tenderness and range of motion of the back."
3	• D05: "Extraarticular manifestation of SpA, based on what I read, is psoriasis, sacroiliitis and inflammatory bowel disease. I sometimes forget to evaluate them" • D06: "I think I often miss the diagnosis probably because lack of knowledge and awareness. I should be learning more"
4	• D07: "Patients usually get better after NSAID, sometimes they refuse to workup and choose alternative therapy (massage, drinking traditional medicine)"
5	• D12: "Based on national standardized competency of GP, SpA might similar to another arthritis, such as rheumatoid arthritis. GP could diagnosis and give early treatment before referral. I gave steroid as bridging therapy to DMARDs, based on my understanding, DMARDs need a further referral to internist or rheumatologist."

*D1-D12: random initial code for each GPs, not in chronologixal order

Daily Exposure to LBP Patients

All GP was exposed to LBP cases in daily practice. Eight GP frequently examined LBP patients with an estimated number of 10-20 patients/day. Four GP rarely see LBP because their workplace is hospital-based, especially in the emergency ward. Since LBP was not an emergency, they were seldomly exposed to LBP patients.

Knowledge about the Definition and Subtype of SpA

Eleven GP could mention that SpA was a spectrum of seronegative arthritis. On the other hand, some participants stated that SpA was related to another autoimmune disease. Only 1 GP could mention that SpA was encompassed by axial SpA and peripheral SpA.

Diagnosis of SpA in Primary Care Setting

All GP could explain that chronic LBP was linked to SpA. Some GP could mention the extraarticular manifestations of SpA, such as Inflammatory bowel disease. Only a few respondents were able to mention the other extraarticular symptoms, such as psoriasis, enthesitis, or uveitis.

Perception about Management of SpA in Primary Care Setting

Not all GP could specifically mention that the treatment goal for SpA was to reduce pain and achieve remission. Only 3 GP mentioned the non-pharmacological treatments such as home-based exercise and rehabilitative therapy. All GP prefer nonsteroidal anti-inflammatory drugs (NSAID) for the first line of therapy. Only one GP mentioned DMARD. All GP also mentioned that steroids could be used as an alternative option to NSAIDs if there was no improvement in managing the patients.

DISCUSSIONS

This study revealed several minor inconsistencies in the perception of GP about subtypes, diagnoses, and management of SpA. Most GP could describe the definition of SpA, but not all subjects could completely mention the intraarticular or extra-articular SpA manifestations. GP lacked the awareness of classification criteria for SpA and most did not give

specific features that refer to inflammatory back pain when asked to differentiate SpA from other possible causes of chronic LBP. Many subjects emphasized the importance of clinical examination in primary care by more focused history taking or concise physical examination.[7] GP are concerned about the lack of resources for testing in primary care settings, which may resulted in late radiographic testing, and HLA-B27 testing was only available in certain health care providers. All GPs were aware of the benefit of NSAIDs and steroids, but only a limited person mentioned non-pharmacological treatment.

The musculoskeletal complaint, especially LBP, accounts for 20% of consultation in primary health care since it is the leading cause of activity limitation and work absence.[10] SpA patients are mostly not recognized, as a study in primary care showed that only 24% of patients with chronic LBP who started before 45 years old were classified as SpA after careful examinations. Study shows that education can be a game changer to GP's daily practice regarding recognition of SpA; outcome found 40% improvement in considering SpA either axial or peripheral. [11] Knowledge of important features of SpA was essential before the referral strategy was implemented in a primary care setting. [12]

This study showed that only a limited number of GP could recall the extraarticular manifestation of SpA. Only a few GP mentioned dactylitis and enthesitis. Psoriasis, inflammatory bowel disease, and uveitis were recognized at 96%, 68%, and 60% GP in another study.[13]

All GP were aware of the benefits of NSAIDs. Mainly mentioned the combination with the steroid to reduce pain and inflammation. Only 2 GP mentioned DMARDs but point for rheumatologist referral. Only a few mentioned non-pharmacological treatments. The goal of treatment SpA includes achieving remission, alleviating symptoms, maximizing function, and preventing structural damage to the spine.[1] Currently available therapies only focus on symptom improvement and physical function, but the impact of treatment on structural damage remains uncertain. Education such as physical therapy, exercise, and smoking cessation could be helpful for GP to advise.[14]

From this study, the current knowledge of GP regarding SpA was overall sufficient. Capacity of understanding and differentiating SpA among low back pain cases is enough. However, we still consider need lot of improvement in definite diagnosis since mostly limited due to lack of diagnostic tool resources in primary care. We found satisfying result regarding early treatment, most GP had it manageable in clinical practice according to current guideline. Given the obstacles, to keep the GP sensitized to the potential cases will be an objective to the success of the recommendation. Strategic diagnosis and awareness training session can be beneficial.[6] Besides, a periodical peer group counseling between GP and rheumatologist also be done.

The limitations of this study were that this was a qualitative study; therefore, still, many aspects need to be elaborated on. The number of GP included in this study was small. Selection bias and knowledge bias cannot be minimized, thus limiting results' reproducibility and application to the broader population. Educating GP through training about leading presentation symptoms of SpA and providing more information about extraarticular manifestation and management will be necessary for early initiation and effective treatment to improve the quality of life.

CONCLUSION

GP already had awareness about SpA when facing chronic LBP patients, but not all could completely mention the type and clinical entities. In addition, limited resources for investigation make barriers to diagnosing SpA. Current early treatment has been acceptable in daily clinical practice. A comprehensive understanding of diagnosis and effective early treatment may reduce delayed diagnosis and improve patients' quality of life.

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