Chapter 1.1

History Taking for Patients with Rheumatic Complaints

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INTRODUCTION

Eliciting history is the most important part of the clinical evaluation to arrive at a diagnosis. Studies have shown that approximately 60–80% of the information towards making a diagnosis comes from clinical history; approximately 7–12% of additional information is gathered from the physical examination and laboratory investigations including imaging add only approximately 5–11%.

This is particularly pertinent in rheumatology, as the majority of rheumatic diseases are chronic, physicians need to be patient while eliciting history and spend time with the patient. History taking requires skill and considerable knowledge regarding prevalence of rheumatic diseases. As always, communication with patients in his or her local language is ideal and rheumatologists have to be familiar with the socioeconomic condition and educational status of the patient. The aim of the history taking is to answer the following:

- Which organ system is involved?
- Is it life/organ threatening?
- What are the likely diagnostic possibilities?
- What is the impact of the illness in daily activities?
- Is it hereditary in nature?
- What is the socioeconomic background of the patients?

History taking includes history of present illness, past illness including an account of all medications (drugs) taken and their untoward effects, personal history, family history, and social background.

HISTORY OF PRESENT ILLNESS

This is to be noted chronologically starting with the initial symptoms and subsequent evolution of symptoms. The duration of illness is the most important component. If the duration of illness is within 6 weeks it is acute, 6–12 weeks is subacute, and beyond 3 months is chronic. Acute or subacute illness involving joints with or without other system involvement could be due to infections, drug hypersensitivity, or even malignancy.

In the presence of long-standing history, the initial event and subsequent progress is often difficult to recall, and in this situation symptoms related to vital organs should be elicited. For joint related symptoms it is frequently observed that patients would mention from the time when the pain was severe or difficulty in performing a task rather than actually when it first occurred. Another confounding factor is that the patient is keen to share earlier consultation reports or results of investigations rather than reporting his/her complaints.

It is important to determine whether the illness is monophasic or with recurring episodes or chronic. In rheumatology practice while eliciting the history, it will be evident that the patients' symptoms suggest involvement of one of the categories mentioned as follows.

1. Sole or predominant involvement of joints.
2. Pain in low back, neck and shoulders.
3. Joints with other system involvement or multisystem involvement.

4. Systemic features such as fever or weight loss.
5. Generalized aches and pain without any localizing system.

1. **Predominant involvement of joints:** One must try to categorize joint involvement as single joint involvement (monoarticular), 2–4 joint involvement (oligoarticular), or >5 joint involvement (polyarticular) as their differential diagnosis varies. The presence of morning stiffness is suggestive of inflammatory arthritis, whereas pain increasing with physical activity and subsiding with rest suggest degenerative disease. Acute attacks of single joint affliction suggest septic, crystal, or reactive arthritis. Chronic oligoarthritis in children and adolescents is suggestive of juvenile idiopathic arthritis (JIA) enthesitis related arthritis (ERA) subtype, in young adults it suggests reactive arthritis and seronegative spondyloarthropathy. Chronic inflammatory polyarthritis of the small joints of hands and feet in a symmetrical fashion is highly suggestive of rheumatoid arthritis (RA). This is particularly so if history suggests presence of deformity. The chapters on approach to monoarthritis and polyarthritis further details points to be elicited in the history.
2. **Pain in the back, neck, and shoulder:** (Also see chapter on approach to low back pain neck and shoulder pain for more comprehensive information). Low back pain is a common complaint in history, and association with morning stiffness suggests inflammatory nature symptoms that improve upon physical activity. More than 90% of patients with a history of low back are due to mechanical reasons such as degenerative spinal disease. Radiation to lower limbs suggests radiculopathy and pain on walking suggests lumbar canal stenosis. If associated with neurological symptoms, bladder and bowel involvement, or systemic features it suggests serious illness like tuberculosis or malignancy.

   Acute presentations are more likely mechanical rather than due to inflammatory disease like spondyloarthropathy. History of shoulder pain could be due to shoulder joint involvement or cervical disc radiculopathy. History of neck pain needs to be ascertained whether it is associated with movement of neck or radiation of pain into the shoulder or beyond. Burning and tingling sensations with neck pain suggest cervical radiculopathy. To resolve the underlying cause, examination is essential.
3. **History suggestive of multisystem involvement with joint involvement:** Requires symptoms to be directly enquired for each system involvement. This is dealt in a later chapter on approach to multisystem involvement.

   Symptoms of redness of eyes, or dryness suggest episcleritis (seen in RA), uveitis (suggests spondyloarthropathy, Behçet's disease), and visual impairment suggests SLE or systemic vasculitis, while proptosis suggests granulomatosis with polyangiitis (GPA).

   Skin rash over the face and other parts of the body is usually brought out by the patients. Whereas symptoms of photosensitivity, location of the rash, blackening or ulcerations need to be probed by the physician. Presence of Raynaud's and tightness of skin suggest systemic sclerosis. Examination of the skin is mandatory to confirm the nature and pathology of the lesions. Oral mucosal lesions provide clues to SLE, Behçet's disease, reactive arthritis, or due to cytotoxic drugs.

   History of chronic cough, dyspnea indicative of lung involvement is seen in several connective tissue diseases. Pain in the chest needs to be asked for and if present relation to breathing and exertion noted.

   Occurrence of edema or of hypertension could provide hints of renal involvement.

   Difficulty in getting up from sitting posture or climbing steps or combing the hair indicate proximal muscle weakness and detailed muscle examination.

   Further details on abdominal system and neurological systems are given in the chapter on approach to multisystem examination.
4. **Complaints of fever and weight loss:** Fever and weight loss of more than 3 to 4 weeks that are not due to infective causes could be presenting features of SLE, inflammatory myositis, and systemic vasculitis. Approach to fever is covered elsewhere.

5. **Generalized aches and pain with no localizing clue:** Could suggest fibromyalgia and history needs to be elicited about the difficulty in sleep. Evaluation of such a patient could be challenging.

PAST, FAMILY, AND PERSONAL HISTORY

Past history is relevant particularly for infections such as tuberculosis or similar illness in the childhood or of any hospitalization or surgery. History in the recent past of a febrile episode, genitourinary infection, gastrointestinal infection preceding joint disease may lead to a diagnosis of reactive arthritis, gonococcal arthritis, or peripheral spondyloarthritis. In India it is not uncommon to see patients with hip arthritis due to spondyloarthritis or JIA being treated with antitubercular drugs.

A history of recurrent infections in the past could be a pointer toward primary immunodeficiency diseases.

Family history is revealing of illnesses that are hereditary. Patients having low back pain or psoriasis or uveitis need to be probed for similar illness in family members. This is so because ankylosing spondylitis is associated with strong family history (Table 1.1.1).

Personal history of smoking, alcoholic intake are important considerations for management of inflammatory arthritis. There is a strong link between smoking and inflammatory arthritis.

Obstetric history in women needs to be taken. Presence of spontaneous abortions or stillbirths need to be determined as they may suggest antiphospholipid syndrome. Any adverse maternal outcome during pregnancy such as preeclampsia needs to be probed.

In summary, history is the most important part in the diagnostic evaluation of a patient with rheumatic diseases. Very often the presence of 'typical history' gives vital clues in clinching a diagnosis (Tables 1.1.2 and 1.1.3), these can be supplemented with examination and relevant investigation.

Table 1.1.1: Rheumatic diseases that are associated with a positive family history

Condition	*Association*
Rheumatoid arthritis (RA)	Patients with RA often have other family members that have other autoimmune rheumatic diseases. A recent large study (Kronzer et al.) found that the presence of another autoimmune condition in the family is a risk factor for early-onset RA. Non-autoimmune conditions in other family members such as pulmonary fibrosis, and inflammatory bowel disease also confers a risk for the development of RA.
Ankylosing spondylitis (AS)	It is known that children of women with AS are at risk of AS much more than children of men with AS. Further, it is also shown (Baudoin et al.) that in AS, firstborn children are more at risk of AS than later-born children, and in many cases the maternal age at delivery is younger (as compared to the general population).
Psoriatic arthritis (PsA)	The presence of a blood relative with psoriasis is considered a strong risk for PsA.
Systemic lupus erythematosus (SLE)	A Danish study had shown that presence of a family member with SLE increased the risk for SLE. About 11% of SLE patients often have another family member with another autoimmune disease.
Hand osteoarthritis (OA)	In this non-autoimmune disease there is greater concordance for hand OA in monozygotic than in dizygotic twins. There is also evidence of increased risk of hand OA in siblings, parents, and offspring (first-degree relatives) of subjects with hand OA.

Table 1.1.2: Typical features in history favoring a diagnosis

Symptoms of joint involvement		*Symptoms of joint with other organ involvement*	
History	**Likely diagnosis**	**History**	**Likely diagnosis**
Acute arthritis of single joint	Septic arthritis	Facial rash, oral ulcers, with polyarthritis	SLE
Acute arthritis of the knee or the first MTP in an elderly male	Gout/ pseudogout	Rash, proximal muscle weakness, and arthritis	Dermatomyositis
Chronic pain and swelling of knee in middle aged female	Osteoarthritis	Fever, arthritis, dry cough, and breathlessness	Antisynthetase syndrome
Acute or subacute arthritis of lower limb joints with or without a preceding GIT or genitourinary infections	Reactive arthritis	Chronic oligoarthritis/ polyarthritis associated with a scaly skin rash	Psoriatic arthritis
Chronic arthritis involving multiple finger joints and wrists in a female	Rheumatoid arthritis	Episodes of monoarthritis or oligoarthritis in a patient with CKD	Gout
Chronic low back pain associated with early morning stiffness in a young male	Ankylosing spondylitis	Asymmetrical oligoarthritis with painful oral/genital ulcers	Behçet's disease (rare in India)

SLE: Systemic lupus erythematosus; *MTP:* Metatarsophalangeal joint; *GI:* Gastrointestinal tract; *CKD:* Chronic kidney disease

Table 1.1.3: Examples of typical history (other than joint symptoms) that clinches a diagnosis

History	*Likely diagnosis*
Tingling and numbness of thumb and index finger	Carpal tunnel syndrome
Foot drop or wrist drop	Vasculitis primary or secondary
Recurrent oral and genital ulcerations	Behçet's disease
Proximal muscle weakness	Inflammatory myositis
Persistent generalized pruritus in elderly females	Primary biliary cirrhosis
Chronic dry cough and dyspnea	Interstitial lung disease (ILD)
Dryness of eyes and mouth	Sjögren's syndrome
Non-healing ulcer	Vasculitis
Sudden onset of unilateral headache with or without visual loss	Giant cell arteritis
Intermittent fever with evanescent skin rash	Systemic onset JIA
Abdominal pain following food	Abdominal angina—systemic vasculitis
Raynaud's phenomenon or digital gangrene	Systemic sclerosis
Blackening of the digits (gangrene)	Polyarteritis nodosa (PAN)
Tender erythematous nodules with ankle swelling	Sarcoidosis
Sudden onset of pain in the hip joint that persists	Avascular necrosis of the hip
Intermittent swelling of ear	Relapsing polychondritis
Collapse of bridge of nose	Granulomatosis with polyangiitis (GPA)

LEARNING POINTS

- The history should be sought from patient in his/her own words.
- Chronological recording of evolution of events is needed.
- Physicians should try to identify the organs affected.
- Duration of illness provides important information on reversibility of manifestations.
- Certain typical history clinches the diagnosis in many diseases.

FURTHER READING

1. Baudoin P, van der Horst-Bruinsma IE, Dekker-Saeys AJ, et al. Increased risk of developing ankylosing spondylitis among first-born children. Arthritis Rheum. 2000; 43:2818–22.
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