Reumatologia 2006; 44, 5: 247–250

Experience with undergraduate training in rheumatology in Poland and some new suggestions

Nauczanie przeddyplomowe reumatologii w Polsce i nowe sugestie

Irena Zimmermann-Górska

Department of Rheumatology, Rehabilitation and Internal Medicine, Poznan University of Medical Sciences,
Chairman: Mariusz Puszczewicz MD, PhD, Ass. Professor of Medicine

A presentation given during the meeting of the Standing Committee for Education and Training of the European League Against Rheumatism (EULAR/SCET), Amsterdam, 21 June 2006.

Skrócony tekst referatu wygłoszonego podczas zebrania Komitetu Edukacji EULAR, Amsterdam, 21 czerwca 2006 r.

Key words: rheumatology, undergraduate training.

Słowa kluczowe: reumatologia, nauczanie przeddyplomowe.

Summary

We have in Poland 11 universities with medical faculties, where Polish and foreign students are taught rheumatology as a part of internal medicine. Students are taught in the 4th, 5th or 6th year of study and rheumatology is covered in 20-40 h of activities – mainly at the bedside and in outpatient clinics. In order to give them essential knowledge of rheumatology we have prepared short textbooks, in both Polish and English. The main aim of our teaching is to prepare students for the role of general practitioner. From my experience of teaching medical students I feel that one disadvantage of the ”Global core recommendations for a musculoskeletal undergraduate curriculum” is that it includes many symptoms which rightly belong to orthopaedics and surgery and not to rheumatology. Before going into practice the student should be able to diagnose and determine the therapeutic interventions required in ”true”, non-traumatic, rheumatic diseases. It is suggested therefore that a programme of an educational course in rheumatology for undergraduates, both ”on-line” and in the form of a short but focussed textbook of knowledge for European medical students, should be prepared.

Streszczenie

W Polsce istnieje 11 wyższych uczelni medycznych, w których zarówno polscy, jak i zagraniczni studenci opanowują wiedzę z zakresu reumatologii jako działu nauki o chorobach wewnętrznych. Zajęcia z reumatologii znajdują się w programie 4., 5. lub rzadziej 6. roku studiów i obejmują od 20 do 40 godzin dydaktycznych. Zajęcia prowadzone są na oddziałach szpitalnych, a także w poradniach. Aby zapewnić podstawowe źródło wiadomości z zakresu reumatologii, przygotowano dwa zwięzłe podręczniki – w języku polskim i angielskim. Naszym głównym zadaniem jest przygotowanie studentów do przyszłej pracy w charakterze lekarzy rodzinnych.
W opinii autorki zaproponowany niedawno program nauczania dotyczący chorób układu ruchu podczas studiów medycznych zawiera zbyt dużo informacji o objawach związanych z ortopedią i chirurgią urazową, a nie dotyczy *prawdziwych* chorób reumatycznych. Zaproponowano, aby opracować program nauczania przeddyplomowego reumatologii *online* oraz podręcznik, który pozwoliłby na ujednolicenie zakresu wiadomości potrzebnych studentom medycyny we wszystkich krajach europejskich.

Address for correspondence:
prof. dr hab. med. Irena Zimmermann-Górska, Department of Rheumatology, Rehabilitation and Internal Medicine,
Poznan University of Medical Sciences, ul. 28 Czerwca 1956 r. 135/147, 61-545 Poznań, tel. +48 61 833 28 11, tel./fax +48 61 831 03 17,
e-mail: zimmermanngorska@hotmail.com

Submitted: 10.10.2006

Our Committee has made a number of attempts to determine the optimal requirements for an undergraduate programme, but this has proved extremely difficult.

So, apart from outlining how we teach students in my country, I am going to present my views on this matter and make a few suggestions.

In Poland we have 11 universities with medical faculties where Polish, as well foreign students, are taught rheumatology as a part of internal medicine. We teach students of the 4th, 5th or rarely 6th year, and rheumatology occupies from 20 to 40 hours of activities mainly at the bedside and in outpatient clinics [1, 2]. Students use a variety of Polish and English textbooks and, in order to give them essential knowledge in rheumatology, we prepared our own short handbooks [3, 4].

It is important to appreciate that the majority of medical students intending to practice in Europe will become general practitioners (GPs). At the same time it is well known that as many as 30% of the complaints made by patients to the first doctor they contact will be of some "rheumatic" problem. The GP must therefore be able to make a preliminary diagnosis and to plan the subsequent management of the patient.

In general practice 3 groups of rheumatic patients must be distinguished:

1. In the first group there are patients with signs and symptoms of "true" rheumatic diseases, in which the musculoskeletal system (MSK) is involved [e.g. osteoarthritis (OA), rheumatoid arthritis (RA), spondyloarthropathies (SpA), etc.].
2. In the second group there are patients with MSK complaints, not connected, however, with rheumatic diseases, but, for instance, with an early stage of an infectious disease or with diseases of the haemopoietic system, malignancy, etc.
3. Lastly, rheumatology includes a number of diseases and symptoms which sometimes may not be connected with MSK at all. These include antiphospholipid syndrome (APS) and the vasculitides.

Table I. Emergency ("red flags") in rheumatology acc. to the "Global core recommendations"

Open fractures
Fractures with nerve or vascular compromise
Cauda equina compression
Compartment syndrome/vascular compromise
Joint infection
Soft tissue infection
Bone infection
Temporal arteritis

Table II. Emergency in rheumatology absolutely needed

Catastrophic APS*
Acute respiratory or renal failure in Wegener's granulomatosis
Acute renal crisis in SSc**
Sudden neuropsychiatric manifestations of SLE***
Rupture of arteries, uterus or large bowel in vascular type of Ehlers-Danlos Syndrome
Amaurosis fugax in APS

** APS – antiphospholipid syndrome*
*** SSc – systemic sclerosis*
**** SLE – systemic lupus erythematosus*

Table III. Titles of chapters of the second volume of "Kelley's Textbook of Rheumatology" (2005)

Section VIII Rheumatoid Arthritis
Section IX Spondyloarthropathies
Section X Systemic Lupus Erythematosus and Related Syndromes
Section XI Mixed Connective Tissue Disease, Scleroderma, and Inflammatory Myopathies
Section XII Vasculitis
Section XIII Crystal-Induced Inflammation
Section XIV Bone, Cartilage, and Heritable Connective Tissue Disorders
Section XV Rheumatic Diseases of Childhood
Section XVI Infection and Arthritis
Section XVII Arthritis Accompanying Systemic Diseases
Section XVIII The Common Ground of Rheumatology and Orthopaedic Surgery

Table IV. Knowledge and skills which medical students should learn as formulated during the Conference of EULAR/SCET in LEUVEN, 1997

1. The student should be able to take a history and carry out a physical examination of a patient with non-traumatic musculoskeletal complaints in order to establish a basis of medical concepts for problem solving.
2. The student should be able to recognise, at an early stage, common disorders in the field of: • infection-induced rheumatic diseases • multisystem diseases • crystal-induced arthritides • degenerative diseases of the joints • metabolic bone diseases • hereditary and congenital connective tissue disorders, psychogenic or stress-related musculoskeletal disorders
3. The student should have a broad knowledge regarding the prevalence (age, sex), course and prognosis of rheumatic diseases and their impact on the patient, his family and society
4. The student should have a basic knowledge about the sensitivity and specificity of the diagnostic blood tests and imaging used in rheumatology
5. The student should be able to distinguish the pathophysiology of the major diseases such as reactive arthritis, autoimmune disorders, crystal arthropathies, osteoarthritis and osteoporosis
6. The student should know the most current therapeutic interventions (indication, side-effects, and duration) as well as principles of multidisciplinary rehabilitation

In my opinion all these possibilities should be included in the curriculum prepared for students.

We have now a very important document – ”Global core recommendations for a musculoskeletal undergraduate curriculum” – which was developed by renowned authorities in the field [5, 6]. I agree with the statement that ”There is... a clear need to improve the competencies of all doctors, and the education of medical students in these conditions in many medical schools needs to be reconsidered” [6]. The problems experienced by rheumatological patients are frequently underestimated by doctors. These facts reflect the inadequate education and training they receive at medical school [7–12], and the curriculum should reflect this. At the same time, in the ”Global core recommendations” there is in my opinion a predominance of symptoms such as fractures, trauma, etc., which belong more to orthopaedics or surgery than to ”true” rheumatology. Even emergency situations almost exclusively involve the MSK system (Table I).

However, it is generally accepted that rheumatic diseases are connected with direct threats to life – e.g. catastrophic APS, acute respiratory or renal crises in Wegener’s granulomatosis, acute renal crisis or respiratory failure in systemic sclerosis (SSc), sudden neuropsychiatric manifestations in systemic lupus erythematosus (SLE), rupture of arteries, rupture of the uterus or large bowel in the vascular type of Ehlers-Danlos syndrome, amaurosis fugax in APS, and many other conditions (Table II).

The large rheumatological textbooks such as ”Kelley’s Textbooks of Rheumatology” [13] usually do cover problems regarding the aetiopathogenesis, epidemiology, symptomatology, diagnosis and treatment of the ”true” rheumatic diseases, and our teaching should include all the diseases mentioned therein [14, 15] (Table III). Moreover, there is an opinion that we should teach medicine through rheumatology because it is highly interdisciplinary [12]. The knowledge and skills which a medical student should acquire were formulated during the 1997 Leuven Conference of the Committee entitled ”Teaching the Teachers of Rheumatology” [14] (Table IV).

Methods of teaching may be ”classical”, i.e. by means of lectures, seminars, videos, CDs and so on, or in small groups, by bedside and outpatient clinic activities, and sometimes by ”patients-partners” (mainly when RA symptoms are presented) [7, 14]. In my opinion, the use of ”simulated patients” can produce an artificial atmosphere and make it difficult for a student to learn how to notice symptoms which are not mentioned by the patient or signs such as pallor, swellings or enlarged

Table V. Methods of teaching

Classical	Experimental
Lectures, seminars, video, etc.	Problem-based learning
Small working groups	Poster sessions
Bedside, outpatient clinic activities	„Intensive Live Patient Experience”
Patient – partners	
(Simulated patients?)	

glands. Several ”experimental” methods of teaching have been proposed, namely problem-based learning, poster sessions or ”Intensive Live Patients Experience” (Table V). It is important to follow the rule of giving priority to ”training” over ”education” [6, 14].

The practical examination is most important in the evaluation of acquired knowledge since it entails an evaluation of ability in history taking during which we can observe the student's communication skills. Proficiency in physical examination and interpretation of diagnostic tests and of imaging in rheumatology must also be tested and evaluated [14].

Conclusions

1. We should modify the recommendations so as to remove the points connected too closely with orthopaedics and traumatology, and instead emphasise details of the most important rheumatic diseases and the emergency states they can cause.
2. There is an urgent need for a concise, convenient handbook summarising all the essential data contained in the larger rheumatological textbooks.
3. An educational course in rheumatology for undergraduates should be prepared ”on line”.

References

1. Zimmermann-Górska I. Rola nauczania przed- i podyplomowego w kształceniu lekarzy rodzinnych. Reumatologia 2000; 38: 120-2.
2. Zimmermann-Górska I. Nauczanie reumatologii w Polsce. Część I. Szkolenie studentów Wydziałów Lekarskich. Reumatologia 2005; 43: 17-20.
3. Zimmermann-Górska I. Choroby reumatyczne. Podręcznik dla studentów. Wydawnictwo Lekarskie PZWL, Warszawa 2004.
4. Zimmermann-Górska I. Reumatologia w praktyce lekarza rodzinnego. Wydawnictwo Lekarskie PZWL, Warszawa 1998.
5. Doherty M, Woolf A. Guidelines for a rheumatology undergraduate core curriculum. Ann Rheum Dis 1999; 58: 133-5.
6. Woolf AD, Walsh NE, Akesson K. Global core recommendations for a musculoskeletal undergraduate curriculum. Ann Rheum Dis 2004; 63: 517-24.
7. Dacre JE, Fox RA. How should we be teaching our undergraduates? Ann Rheum Dis 2000; 59: 662-7.
8. Dacre JE, Griffith SM, Jolly BC. Rheumatology and medical education in Great Britain. Br J Rheumatol 1996; 35: 269-74.
9. Glazier R, Buchbinder R, Bell M. Critical appraisal of continuing medical education in the rheumatic diseases for primary care physicians. Arthritis Rheum 1995; 38: 533-8.
10. Hosie GA. Teaching rheumatology in primary care. Ann Rheum Dis 2000; 59: 500-3.
11. Lanyon P, Pope D, Croft P. Rheumatology education and management skills in general practice: a national study of trainees. Ann Rheum Dis 1995; 54: 735-73.
12. Rudd E, Lockshin MD. Education in rheumatology for the primary care physician. J Rheumatol 1978; 5: 99-111.
13. Harris ED, Jr, Bydd RC, Firestein GS, et al. (eds.). Kelley's Textbook of Rheumatology, Seventh Edition. Elsevier Saunders 2005.
14. Dequeker J, Rasker JJ, Woolf AD. Educational issues in rheumatology Bailliere's Clinical Rheumatology 2000; 14: 715-29.
15. Doherty M, Lanyon P. Rheumatology: What should all doctors know? Ann Rheum Dis 2000; 59: 409-13.