Primary Care Epidemiology and Global Health

The Burden of Rheumatic Diseases in the Community: Raising Awareness in Primary Care

Rheumatic and Musculoskeletal Diseases (RMDs) are a highly diverse group of diseases and conditions, that can present in people of any age, including children. They are one of the leading causes of disability, affecting not only the joints, but almost any organ of the body [1,2]. Recently, a European League Against Rheumatism (EULAR)-American College of Rheumatology working group acknowledged that there is still lack of awareness regarding the complexity and importance of RMDs in the community [1]. Despite tremendous progress in early diagnosis and therapeutics of RMDs that has been achieved, various unmet needs remain, and significant consequences emerge at individual or societal level [3]. The role of Primary Care Physicians (PCPs) is strongly encouraged towards the direction of rigorous detection and referral to specialist, as well as, the co-management of comorbidities and other preventive measures, recommended for patients diagnosed with RMDs [4].

Interestingly, a number of high-quality reports on the clinical and epidemiological profile of RMDs that have been published during last decade, revitalized our interest to describe the burden of RMDs, through specific indicators, and broaden our knowledge about case definitions/classification criteria, prevalence, incidence, survival, risk factors and co-occurrence rates with other non-communicable diseases [5,6]. Notwithstanding, methodological problems in epidemiological studies of RMDs have long been discussed [5,7]. Among the less reported difficulties to obtain a clear picture of RMDs’ epidemiology, are the cost of obtaining data, the evolving case definitions, the limited number of population-based registries which describe the diseases’ occurrence/profile at the community and not only at hospital settings, and scarce data from the developing world [1]. Nevertheless, the current reports, although not completely representative, provide a number of interest messages for the PCPs that are discussed below in brief.

In the following paragraphs, illustrative examples of RMDs are given, highlighting the role that PCPs can have in early detection of RMDs and relevant comorbidities, based on their clinico-epidemiological characteristics. In total, RMDs are among the most common disorders, yet the individual diseases that constitute this group may be not [1]. Polymyalgia Rheumatica (PMR) remains one of the most prevalent inflammatory rheumatic diseases, especially in elderly patients, in fact, the second most common one after rheumatoid arthritis [8], with prevalence 0.85%, and overall incidence rate as high as 95.9 per 100,000 general population,
with stabilizing trends [9]. Although PMR is generally considered a disease that can be managed in primary care settings, at least the typical cases, primary care physicians’ diagnostic accuracy is lower than expected, leaving much room for improvement [10]. Additionally, patients with polymyalgia rheumatica receive high doses of corticosteroids for a prolonged time, much longer than the relevant recommendations suggest, presenting with increased risk of fracture (by 63%) [11] thus, there is need to rigorously identify these patients [12].

Furthermore, although the role that PCPs can play in the most prevalent RMDs, such as rheumatoid arthritis, has been generally broadly reported, the existing diagnostic delay of about two months (from PCP to rheumatologist) is not negligible [13], since early diagnosis may prevent progression of joint damage in more than 90% of patients. It is of high importance that PCPs be aware of the “therapeutic window” of very early arthritis that represents a distinct pathophysiologic phase of the first months, during which if treatment begins, a better prognosis can be achieved [14,15]. It is also important to remember that atypical presentations of rheumatoid arthritis, such as numbness or weakness, may lead to a referral delay, among others [4].

Interestingly, some of the uncommon RMDs, such as Systemic Lupus Erythematosus, are not considered as rare as they used to, in the past [16,17]. Yet, for a PCP, it is not only the cases that a decision to referral with “possible SLE diagnosis” will be made, but all the cases that SLE is suspected, with low probability, and the patient should be reassured or re-evaluated [18]. In addition, it has to be stressed out that the clinical features of SLE may actually differ from “text-book” descriptions, as SLE does not present only in young girls, but also in middle-aged women and, increasingly, in men and, commonly, manifest with milder/atypical presentation at early stages [18].

Lastly, the concept of multimorbidity is a “hot topic” in RMDs, with 30% of patients at diagnosis of Rheumatoid Arthritis and 80% during follow-up, presenting with at least one comorbidity, whist patients with established RA have on average two comorbidities [19,20]. Depression, obesity, hyperlipidemia, increased cardiovascular risk and risk of specific malignancies, as well as osteoporotic fractures and infections are commonly seen in patients with RMDs [21], and they are considered as one of the main factors for non-declining mortality rates [20]. Importantly, RMDs are highly prevalent in patients with non-communicable chronic diseases (i.e., 38.6% in cardiometabolic diseases) [22]. Skills of PCPs and hospital specialists can be complementary in approaching multimorbid patients in a holistic manner [4].

Education of PCPs is a priority not only in early identification and referral, but also in the multimorbidity management, with previous studies reporting under-recognition and under-assessment of cardiovascular risk, in patients with rheumatoid arthritis in primary care, with only 15% and 34% of PCPs assessing their patients with diagnosed RA for primary and secondary prevention of cardiovascular risk. Although this was increased after relevant education, PCPs were not consistently engaged in their clinical routine [23]. As robust diagnostic criteria do not exist for the majority of RMDs and the existing prediction models for rare conditions are not likely to be effective in primary care software [24], the education of PCPs on rheumatic and musculoskeletal conditions re-emerges as challenging but promising task [25,26].

In conclusion, there are some points of epidemiological studies of rheumatic diseases that can be meaningful in primary care, where the diagnostic uncertainty is higher than hospital settings. “Translating” occurrence trends and epidemiological features into practical messages for the PCPs, may be extremely helpful for the everyday clinical practice. To this direction, more research focused on primary care level, more robust prediction models and diagnostic questionnaires and PCPs tailored training on RMDs are highly needed.

References

1. van der Heijde D, Daikh DI, Betteridge N, Burmester GR, Hassett AL, et al. (2018) Common language description of the term Rheumatic and Musculoskeletal Diseases (RMDs) for use in communication with the lay public, healthcare providers and other stakeholders endorsed by the European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR). Ann Rheum Dis 77: 829-832.


