Editorial

Rheumatology in Mauritius: challenges and opportunities

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Mauritius is an island off the south east coast of Africa with a population of 1.2 million inhabitants[1]. The country is world famous for its all-year-round sunny climate, sandy beaches, warm and welcoming local people. Mauritian people are from diverse ethnicity, culture and faith with a predominance of Indian origin people followed by Creole, Sino Mauritian and Franco Mauritian. Though the official language is English, Frenchcreole, French, Bhojpuri are other commonly spoken language in the country. The government provides a free universal health coverage. Non Communicable Diseases (NCD) diabetes mellitus and cardiovascular diseases are the leading cause of premature mortality and disability in Mauritius[1,2]. Rheumatic and Musculoskeletal Diseases (RMDs) have been seen and followed in the Department of Physical Medicine since colonial era in Mauritius formerly by specialists in physical medicine and for the last 20 years till now by specialists in rheumatology. As the number of attendances have been significantly increasing over the last 10 years, and so was the disease burden associated, and the complexity of treatment, the department name was finally changed to Rheumatology in May 2023 which was a very important step.

Rheumatology set up in public hospitals

Patients following treatment in the physical medicine in government hospitals are usually cases of chronic arthritis like osteoarthritis, rheumatoid arthritis, psoriatic arthritis, gout, ankylosing spondylitis, lupus and juvenile idiopathic arthritis.

Table 1: Yearly attendances to Department of Physical Medicine/Rheumatology from 2009 to 2021 every 2 years[1](https://health.govmu.org/Pages/Statistics/Health/Mauritius.aspx)

Year	Yearly attendances in physical medicine
2005	No data
2006	17963
2007	19388
2009	19976
2011	22133
2013	25457
2015	29936
2017	31336
2019	32384
2021	28906

From the year 2006 till 2021 there has been a gradual increase of the number of attendances in the department. In 2005 and 2006 Mauritius was hit by an outbreak of Chikungunya viral infection. Though the country officially reported some 3600 cases in 2005 and 11000 cases in 2006[3] it is estimated that the number could have been much more as not all infected patients attended hospitals for screening. Following the outbreak, a high prevalence of chronic arthritis was observed in the affected population[4]. This could account for gradual increasing number of attendances in Physical Medicine/Rheumatology unit. The increasing number of attendances can also be attributed to the direct and indirect impact of media campaign held by government and private sector on arthritis. Though we document the yearly attendances and even admissions due to RMDs we unfortunately lack data on the various types of RMDs we are seeing.

Based on estimate from drugs we use in particular methotrexate and other conventional DMARDs like salazopyrine, hydroxychloroquine, etc we have a rough estimate of one third attendances being due to rheumatoid arthritis and one thirds due to psoriatic arthritis and the rest being osteoarthritis, gout, Spondyloarthropathy and other rarer conditions like scleroderma, mysositis, Sjogren's syndrome, IGG4 Related Disease etc. In general most adult Systemic Lupus Erythematosus (SLE) cases in our set up are seen by internal medicine specialists while childhood onset lupus are seen by rheumatologists and paediatricians as the country does not have paediatric rheumatologists as yet.

In terms of man power the country has 13 rheumatologists[9], working in public sector of which 6 are also doing part time in private and 4 exclusively in private. At present we have only one nurse specialised in rheumatology.

Basic screening tests are freely available in our public sector like inflammatory markers, rheumatoid factor, ANA and ds DNA, ENA and HLA B 27 typing. Plain X-rays can be done in all centres but MRI /CT facilities are often restricted to certain centres. Bone scintigraphy and bone mineral density scan are also available in public set up.

Most conventional Disease Modifying Anti Rheumatic Drugs (cDMARDs) are available for free in our hospitals. But after the Covid 19 pandemic we have noted disrupted supply in medication both in public and private hospitals which impacted heavily on patient disease activities. Biological DMARDs (bDMARDs) remain a non-listed medication in public and hence non accessible to most patients. Very few patients can afford originator bDMARDs, some are hence prescribed biomemics or biosimilars which have well penetrated our local markets in private.

In general, once induction is done with conventional DMARDs patients are monitored at 6 weeks, 8 weeks, 12 weeks intervals. Stable patients are seen every 4 months. Parameters that are monitored are haematology, liver enzymes, urea and elctrolytes, and blood sugar levels. Since we live in a country where diabetes is very prevalent, we are very careful about use of steroids and hyperglycaemia.

Patients are also required to do plain X-rays for joints depending on history and physical examination to assess for joints erosion and osteoarthritic changes. Some patients are referred to orthopaedic units for surgical intervention like total knee or hips surgeries. Screening for Interstitial Lung Diseases (ILDs) and cardiovascular diseases are carried out routinely. We rarely measure any composite number for disease activities and hence assessing remission or low disease activity is solely based on inflammatory markers and response from patients. Patients are also referred to allied health care professionals like physiotherapists, occupational therapists, psychologists and nutritionists for supportive treatment. Recently with introduction of ayurvedic medicine in public hospitals many patients are also seen simultaneously with them for supportive therapy. Prosthesis, braces, lumbar belts, heels pads for shoes, walking aids are available also in our set up for free.

Challenges in rheumatology practice in public

Despite efforts in improving rheumatology practice in Mauritius, patients in need of biological DMARDs still do not have access to it. Even though the few who can afford them can only sustain for a few months. Furthermore nobody knows how efficient the biomemics will be in long term as there are almost no published data on them. Furthermore like in many other countries we also face the issue of diagnostic delays especially in axial spondyloarthropathy and paediatric rheumatology cases. We hope to conduct nationwide awareness campaign and educational activities to shorten the delay.

We also face the challenge of noncompliance to medication among our patient pools. Many of our patients are on multiple drugs for their NCDs conditions and hence take RMDs drugs only when they feel the pain, resulting in progressive joints damages. This warrant further studies on compliance in Mauritius.

In terms of research, we still lag behind,with few papers on chikungunya arthritis and HLAB27 associated arthritis. More studies are needed in prevalence and incidence of rheumatoid arthritis and psoriatic arthritis in the country. Furthermore, the disease association of HLA b27 in our spondyloarthropathy is yet to be studied.

Rheumatology services in private sector

Mauritians who enjoy private insurances are seen in private health institution. Where all facilities are accessible, however insurance companies do not cover long term chronic medications. Hence again only a few of elite can be treated to target in private.

Future of rheumatology in Mauritius

Looking back from where we were to where we are in rheumatology in Mauritius, we cannot overlook the fact that much has been achieved. But the horizon is still far opening endless areas of research, possibilities and opportunities. Though bDMARDs are expensive and do not seem to be a sustainable option in treatment of RMDs in Mauritius, the introduction of Janus kinase inhibitors and its availability from India at competitive prices is opening new affordable therapeutic to be exploited. Studies conducted in India on JAK inhibitors efficacy in RMDs are promising[5].

References

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