Pediatric Rheumatology: Where Do We Go From Here?

In recognition of Ross Petty’s impending retirement, colleagues gathered to acknowledge with admiration and gratitude his illustrious contributions throughout his pediatric rheumatology career, to reflect on pediatric rheumatology’s progress, to learn about new advances, and to contemplate the discipline’s future. Presentations comprising the scientific symposium held in Ross’s honor are recorded in this issue of The Journal1 and reflect pediatric rheumatology’s accomplishments, challenges, and aspirations.

As physicians and scientists we embark on our careers believing our futures will be punctuated by discoveries: glorious discoveries that reveal the causes and mechanisms of disease, facilitate earlier and definitive diagnoses, promote more effective and safer therapy, and make disease prevention realistically achievable. Time passes, however, and as we and our careers mature, we soon come to the disconcerting realization that the visions of marvellous discoveries linger too long as unfulfilled achievements.

While disillusioned at times by slow-paced progress, we must acknowledge that advances occur. Progress in the field of pediatric rheumatology in particular has been extraordinary: there are now pediatric rheumatologists worldwide; diagnoses are made earlier and with greater precision, and new therapeutic strategies do offer more hope. Innovative research and training initiatives have emerged. However, we are still far from knowing the causes of most rheumatic diseases, understanding their pathogenic intricacies, and managing afflicted patients as effectively and safely as we desire. We have almost no insight into effective prevention strategies.

There are, however, reasons to be optimistic: we are on the verge of dramatic advances in an astonishing era, in understanding ourselves and the factors that conspire to produce disease. But how, amid astounding scientific progress, do we best navigate daunting new technologies and theories to improve care for children afflicted with rheumatic diseases? Where do we go from here, and how do we get there? The answers, I believe, are clear: pediatric rheumatology’s continuing success will require attentiveness to Clinical Care, Education, Advocacy, and Research.

CLINICAL CARE

Efforts of our earlier visionaries have entrenched pediatric rheumatology clinical care programs, so crucial to achieving patient care excellence, in academic centers worldwide. But limited resources in some centers might be regarded as unacceptable inequity: having less, I might be inclined to clamor for as much as others; but, like others, I have a responsibility to ensure that resources I already utilize and those I seek are justifiable, and that multifaceted care programs required to manage rheumatic diseases are formulated rationally and implemented efficiently. While a laudable aspiration, evidenced-based pediatric rheumatology clinical practice is seldom possible. Let us ensure, however, that as we nestle into practice, we do not become so complacent with convention that we fail to regularly appraise the diagnostic and therapeutic options we choose. Together, we ought to develop practice guidelines, evaluate their utility, and revise and refine them as emerging knowledge and experiences dictate. Taking part in the process will be equally valuable: the required discussions, deliberations, and debating will foster productive critical thinking.

When lobbying for more sophisticated drugs and elaborate diagnostic tools we must avoid becoming so titillated by new technologies and treatments that we dismiss as unimportant other fundamental factors that, we are now learning, influence disease outcomes and must be considered when providing proper care. Tumor necrosis factor-α inhibition alone is insufficient care for a child living in an insecure,
disciplines. In addition to promoting novel teaching curricula that interdigitate with training programs in other fundamental principles of pediatric rheumatology and create innovation, creativity, and intolerance of the status quo, while immersed in learning environments that who share an eagerness to participate in the process of discovery, while immersed in learning environments that.

We must strive to jettison the new “juvenile idiopathic arthritis (JIA)” nomenclature and classification system as quickly as possible. Reticence among some to embrace “idiopathic” as a descriptor might reflect their disinclination to so blatantly expose our ignorance and admit we understand very little about childhood rheumatic diseases. Much sooner than later, however, the JIA nomenclature will become anachronistic. Soon, discoveries that explain childhood rheumatic diseases will allow us to expunge “idiopathic” from the rheumatology lexicon. We must resist the assumption that these idiopathic conditions will remain unexplained. Each utterance of the term JIA should remind us of our ignorance and provoke us to acknowledge that we have no tolerable option but to strive to do what we do better.

Among the earliest challenges to confront pediatric rheumatology was reticence to accept that pediatric rheumatology should be nurtured as a required subspecialty. Now pediatric rheumatology is accepted as essential, vital, and indispensable and distinct from adult rheumatology. However, while successfully establishing our distinctiveness we might have unwittingly promoted dissonance between pediatric and adult rheumatology that could impede advancements desired by both sectors. Important to rheumatology’s future will be the realization that we ought not to govern all of our pediatric and adult rheumatology agendas in isolation from each other. We, including our adult rheumatology colleagues, ought to accept that certain rheumatic diseases, believed to have an adult onset, in fact have their origins in pediatric populations.

EDUCATION

Essential for the discipline’s success will be establishing not just how many more pediatric rheumatologists should be trained, but who is to be trained, and what is the content of their curricula. Selection of candidates should favor those who appreciate that the subspecialty is challenging, that it is not (unlike others) organ-, system-, or etiology-specific, that the spectrum of conditions for which we assume responsibility is expanding, and the acuity of illnesses and complexities of treatments are increasing. We must select trainees who share an eagerness to participate in the process of discovery, while immersed in learning environments that encourage innovation, creativity, and intolerance of the status quo.

Our training programs must continue to both teach fundamental principles of pediatric rheumatology and create curricula that interdigitate with training programs in other disciplines. In addition to promoting novel teaching approaches within pediatric rheumatology we should begin to impose a pediatric rheumatology perspective on trainees in other disciplines, to encourage them to apply their expertise to the future study of childhood rheumatic diseases.

ADVOCACY

Pediatric rheumatologists must continue to advocate with uncompromising vigor for patients and the resources they deserve; however, this does not mean just doing in little people what has already been done in big ones. Such advocacy is not just a matter of principle: advancing pediatric rheumatology agendas will help us understand childhood rheumatic diseases and will contribute insights into adult rheumatic diseases, as well as nonrheumatic diseases in which immunoinflammatory processes are important. That reality and that message ought to facilitate our lobbying for attention and resources.

RESEARCH

Pediatric rheumatologists have the inclination, energy, perspective, and responsibility to provide aggressive leadership in prioritizing research agendas, instigating and implementing research programs, and cajoling and enticing other disciplines to work with us. No one of us comfortably cloistered in our own laboratories or clinics can hope to achieve alone that which will be made easier together; transdisciplinary and multicenter research collaboration will be essential for success.

We have emerged from the last century of information technology into a new millennium characterized overwhelmingly by biotechnology. Our research initiatives must reflect that change. But in formulating biologically-based research we must acknowledge also that our patients and their diseases do not exist in isolation from where and how they live. That rheumatic diseases have multifactorial origins is frequently espoused, generally accepted, but seldom studied. We must begin to more effectively evaluate the pathogenic importance of interactions of environmental, psychosocial, nutritional, and lifestyle influences with inherent biologic processes.

Too often pediatric rheumatologists, when confronting an ill child, must acknowledge that we really don’t know what disease they have, how to control or cure it, and what factors have conspired to afflicting this child. But now, more than ever, we can be confident that, armed with astounding technology and inspired by children we serve, we will achieve desired progress much sooner than most might believe.

How will we achieve the progress we desire without our earlier mentors and inspirational leaders, such as Ross Petty? With respect, we don’t really need those earlier visionaries any longer. Of course, we will miss those such as Ross Petty, with his bristling intellect, wisdom, vigor, wit, and warmth.
But the most powerful indication of the impact he and other predecessors have had is a sustainable, vibrant, and expansive foundation. To know that pediatric rheumatology will thrive because of them but without them is perhaps their greatest legacy. For their achievements and contributions, we, the current pediatric rheumatologists, express, on behalf of the children we serve, our deep and eternal gratitude.

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REFERENCES