

Endocrinology in Pakistan: Transcending in care of endocrinological disorders

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ABSTRACT

This brief communication gives an overview of endocrine practice in Pakistan. It highlights the recent advances in endocrine research and training in the country. The article also lists the common endocrine morbidity encountered in clinical practice, and suggests ways of improving endocrine care and research in Pakistan and neighboring countries.

Key words: Pakistan, endocrinology, current trends, diabetes

INTRODUCTION

I feel obliged to express my appreciation for the quality of material published in this magazine. The galaxies of renowned scholars of medical profession have made valuable contribution for readers to benefit. As President of Pakistan Endocrine Society (PES) for the current year, I consider it my obligation to highlight the great need for pursuing exchange of knowledge between us.

OUR ACHIEVEMENT

There are excellent retrospective data published regarding diagnosis and management of thyroid carcinoma^[1,2] and the use of recombinant thyrogen in thyroid cancer.^[3] Some other interesting observations have been published with regard to the high (40%) prevalence rate of Vitamin B12 deficiency in patients with hypothyroidism.^[4] This should be of interest and relevance to Indian readers as well. The 60-min post-short synacten test has been shown to

be reliable in excluding adrenal insufficiency.^[5] This too, is a cost-efficient method, which can be replicated in other South Asian countries. However, literature is pretty scant regarding any significant research data about pituitary disorders in Pakistan. One case report of particular interest was regarding a patient of untreated Cushing's disease who was twice able to get pregnant spontaneously resulting in two healthy babies.^[6] A retrospective review of 338 pituitary lesions detected on MRI scanning showed a significant proportion of associated endocrine abnormalities, including empty sella syndromes.^[7] While polycystic ovarian syndrome (PCOS) remains a major concern for young women, there remains a scarcity of published data. There are only a handful of studies that address issues, such as the use of metformin in PCOS and subsequent pregnancy.^[8,9] Short stature is another social stigma, which is difficult to address in the light of expensive treatment options. Diagnostic tools, such as IGF-1/IGF-BP3^[10] and incidence of growth hormone deficiency in short stature^[11] has been carried out in Pakistan. It would be interesting to compare these results with similar studies from across the border.

OUR CHALLENGE

In Pakistan, we still have a long way to go in achieving adequate knowledge regarding prevalence and causes of common endocrine diseases, such as thyroid disease, Latent Autoimmune Diabetes in Adults (LADA), iodine deficiency,

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osteoporosis, Vitamin D deficiency, and many metabolic disorders. Most of the childbirths are still handled outside the medical institutions. Hence diseases, such as Sheehan syndrome are still not adequately documented. The story that we hear afterward is usually inability to lactate or cessation of menses after childbirth. Many of the young women suffer from PCOS and struggle for appropriate treatment for infertility and menstrual irregularity. The social stigma attached to this disorder is enormous and is inappropriately treated, especially in rural areas.

Pakistan has an estimated national population of 162 million (2008 Figures). The estimated population over the age of 65 years is 5.36 million (women, 2.358 million, men, 3.002 million), Women over age 50 years are estimated to be 7.753 million and men over the age 50 years are 9.454 million. With this growing number of older population, there comes an urgent need for standardization of treatment of disorders faced by this aging population. We still haven't been able to collect enough data/research findings to provide our physicians with guidelines to manage common diseases, such as diabetes, thyroid disorders, osteoporosis, metabolic disorders, and the other endocrinopathies, faced by this aging population. There are about 25 Physicians, who have attained post medical fellowship training in Endocrinology / Diabetology, but many more are required for a country as populous as Pakistan (<http://www.pakendosociety.org>).

Just to quote one example of inadequate knowledge regarding common disorders, we still lack data on osteoporosis and fracture risk in our population. This limits our ability to predict and prevent this very important public health problem. Estimates based on Ultrasound bone mass density study of 171,788 subjects throughout the country (unpublished data presented at 4th National Seminar on Osteoporosis), revealed that there would be 40.18 million (women, 20.73 million; men, 19.45 million) with osteopenia and 9.91 million (women, 7.19 million; men, 2.71 million) with osteoporosis. These numbers are estimated to rise to 11.30 million (2020) and 12.91 million (2050). Despite the enormity of this disease, diagnostic tools might not always be utilized/available. There are approximately 16 dual-emission X-ray absorptiometry machines (0.01 per 10,000 population), 150 ultrasound machines (0.1 per 10,000 population) and 2 computed tomography scan. These data on metabolic bone disease reflects the great lacunae in diagnosis and management of other endocrine disorders.

TEAM WORK

One of the key areas that need to be developed is interdisciplinary approach and coordination between

specialties. Unfortunately, sometime specialties, such as neurosurgery and endocrinology, are found to be operating in isolation when dealing with a case of pituitary disease. Lessons learned from our past experiences are that formation of multidisciplinary clinics will be able to provide best care to patients. These clinics, although rare, can be easily organized in academic institutions. Availability of these facilities in rural areas/smaller towns is a big challenge faced in this part of the world.

In general, medical specialties, such as rheumatology, endocrinology, nuclear medicine, and infectious disease, have been neglected in the past, but this is destined to improve with the introduction of fellowship programs in these fields. Another area of possible improvement is nursing, nutrition, podiatry, nurse education, and laboratory technology. As we know from the western world, these support staff play a pivotal role in managing complex and time-consuming endocrine disorders.

THE FUTURE

In Pakistan, recently we have recognized endocrinology as separate subspecialty. Fellowship and training programs are being organized at different academic institutions. After this announcement, there has been an overwhelming response from young physicians for their enrolments in these fellowships programs and excel in this field. Currently, most of the endocrinologists practicing in Pakistan have received their qualification from foreign fellowship program. These endocrinologists are mainly located in bigger cities and patients of rural areas still travel long distances for consultation.

We are blessed with a few institutes of excellence, where quality research is being performed to overcome some of the hurdles mentioned earlier. There are interesting data being published on thyroid carcinoma and its treatment, a high (40%) prevalence rate of Vitamin B12 deficiency in patients with hypothyroidism, pituitary disorders, PCODs, and safety of metformin during pregnancy, growth hormone testing protocols, and many other endocrine disorders.

In the first decade of its inception, PES has been able to inculcate interest in our physician population to learn more about this field of medicine. Through our annual and periodic regional meetings, which receive best rating among Continued Medical Education (CME) arranged at different levels, we have been able to disseminate information regarding diseases, which are often missed in pharma-initiated/-organized meeting. Formation of local chapters is another effort, which has given fruitful results.

Collaboration between Endocrine Societies of this region is something I wish to achieve during my tenure as president and years to come. We at PES think that there is a great scope and need for progress in the field of Endocrinology.

In the spectrum of prevalent diseases in Pakistan and India, there exist a common gene pool and common factors of their cure and prevention. We have known the fact that medication and guidelines prepared in the western world do not always have the same impact in our population. Hence, we need opening of window of opportunity for working in collaboration and frequent sharing of our disease-related knowledge and experiences. This will kindle a new hope of success for alleviating the health-related suffering of people from both the countries.

CONCLUSION

I will strongly encourage researchers to explore the possibility of performing multicenter trials involving institutions of both our countries. This will not only improve the credibility but also accomplish wider acceptability among physicians. I cannot finish without mentioning, how *IJEM* has great potential of playing a constructive and effective role by incorporating research work of medical profession belonging to either side of boundaries.

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