Emergence of dermatology in India

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INTRODUCTION

Dermatology, the science of the skin and its appendages, is one of the many specialties that evolved from general internal medicine during the course of the nineteenth century. Till this time, physicians with few exceptions, were little concerned with the skin, apart from the exanthemtic eruptions of acute fevers. During the last decades of that century, contributions of some, such as Heberden, Cullen, and Hebra, laid the foundations on which the pioneer specialist dermatologists of the following century were able to build. In India, dermatology as a specialty came into prominence only in the twentieth century, although skin diseases like leprosy, viral fevers like measles and chicken pox (amma), psoriasis, and vitiligo (venkushtam or white leprosy) were recognized long back. Major strides in the etiology, pathogenesis, and treatment of skin disorders took place during the twenty first century. Today, dermatology is a well-developed specialty with established departments in various medical colleges and hospitals. Growing numbers of dermatologists render their services to the general population throughout the country and many have specialized into various subspecialties like pediatric dermatology, dermatosurgery and cosmetic dermatology, and dermatopathology. Contributions to the world dermatology by many Indian doctors are applaudable, although some lacunae still remain.

ANCIENT PRACTICES IN DERMATOLOGY

In India, therapeutics of dermatoses were known and practiced by our ancient physicians for centuries, Charaka Samhita contains one chapter on the subject. This is a famous ancient medical treatise dealing with basic principles of Ayurveda, one of the four vedas dealing with the knowledge of health. In this ancient book, worshipful Atreya Punarvasu has described eighteen dermatoses and attributed them to the preponderance of morbid humorus (vata, pitta, and kepha) causing disturbance of body elements resulting in diseases. Knowledge of infections and allergens, etc. did not exist in those days. In the absence of specific remedies, therapies used were mostly emphirical and often unsatisfactory.

Ayurvedic dermatology was later influenced by the Unani system imported into the country with the invasion by Muslims. Concoctions, Karhars, and blood purifiers were chiefly resorted to. Both the Ayurvedic and the Unani systems were practiced side-by-side, along with the barbers (Jarahs, in local language). While the former two relied mainly on purification of blood, the barbers mainly laid emphasis on cauterization of skin lesions and burning out the disease with its root. Their cheapness and easy accessibility attracted the ignorant and the illiterate, but less so the educated.

Medical charlatans selling panaceas for cutaneous ailments and faith healers were commonly seen then and similar outlets still continue to persist even in this age of scientific progress due to dearth of dermatologists in the backward areas. Also, even today, there is no dearth of herbalists in the country. Main indigenous herbs used were seem, chraita, myrobalans (trifla), amala, embelia, Indian berry, bapchi, catechu, and centella. Most of the herbs were processed unesthetically with cow dung and urine, etc.

Poultries and plant(s)/tree(s) exudates, particularly oak and garlic, were also used extensively. Exact statistics are not available about the number of skin patients treated by vaids, hakims, barbers, medical charalatans, herbalists, faith-healers, and quacks as there are no records or statistics maintained by the

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practitioners of these ancient and indigenous arts, but the number is definitely not small by any means. The treatment in most diseases was, at best, symptomatic and, at worst, dangerous. Not excluding the olden days, even at present times, chemical dermatitis, erythroderma, and drug eruptions caused by these unscientific preparations are common problems in any dermatological clinic in India.[4]

BRITISH LEGACY IN PROGRESS OF DERMATOLOGY

The health authorities in British-India became aware of the prevalence of dermatoses and venereal diseases in the latter part of the nineteenth century. Accordingly, Dr. Vandyke Carter,[4] Surgeon Major, HMS Indian Medical Services, was requisitioned to take stock of the situation. This, perhaps, was the first scientific endeavor to study dermatoses in the Indian subcontinent, where hardly any statistics were available. The problem was further compounded by the social taboos attached to the skin diseases. That was the time when afflicted patients preferred either to conceal their illness or sought treatment from quacks; however, it was difficult to lay hands on the mission. It was, therefore, considered imperative to commission Fox and Farquhar in the year 1872, to precisely determine the prevalence and pattern of dermatoses in India, and to coordinate with the specialists in England so as to bring about uniformity in the nomenclature, diagnostic methods, and therapeutic regimen.[5]

Information regarding the incidence and etiology of endemic skin diseases in India was later compiled in a book by Tilbury Fox.[1]

EARLY PROGRESS OF DERMATOLOGY IN INDIA

Growth of dermatology in the twentieth century can be studied by reviewing the transactions of the different medical societies, reports of Civil Surgeons and Army, report of the Sanitary Commissioner, Government of India, Indian Medical Gazette, and report of the Carmichael Tropical School of Medicine. All this while, dermatology was not established as a specialty and scientific, specific drugs being used were indeed very few.

Some of the oldest skin departments in the country got established in Calcutta (Kolkata), Madras (Chennai), and Bombay (Mumbai) for decades. Others are of recent origin. A skin research department with various units (including mycology) developed in the School of Tropical Medicine and Carmichael Hospital for tropical diseases since 1924 under the guidance of Late. Lt. Col. Acton.[9] Leprosy work was mainly carried out by Christian missionaries in different parts of India including a specialized department in the School of Tropical Medicine, Calcutta, headed by Dr. Muir. In 1977, small pox was declared eradicated in India.

Substantial progress has been achieved by eminent workers in this field, mainly postindependence. Growth of medical education and the establishment of the skin departments in teaching and also general hospitals provided the necessary impetus to the development of dermatology services in this country.

The first chair of dermatology was established at Grant Medical College, Jamshedji Jeejebhoy Hospital (JJ Hospital), Bombay, in 1895. Major C. Fernandez, M.D. (Brussels), who was earlier trained under Unna, Brocq, and Darier, made the creation of this chair possible through his pioneering efforts. Befittingly, he was the first occupant of this distinguished chair, and the honor of “Founder of Indian Dermatology” is rightfully bestowed on him. In the latter part of the nineteenth century, the health authorities in the then British-India became aware of the need to have data on the prevalence of dermatoses and venereal diseases.[4,5] The second department, at the School of Tropical Medicine in Calcutta, was started in 1923, after a gap of nearly 28 years, under the patronage of Dr. Ganpati Panja and Col. Acton. Subsequently, in 1926, the department of dermatology and venereology was established at Seth Goverdhandas Sunderdas Medical College and King Edward VII Memorial Hospital, Bombay. Dr. A.C. Rebello as honorary dermatologist and venereologist headed it. During the period from 1956–1974, the status of the specialty was further elevated and steps were taken by state Governments to set up departments of dermatology and venereology in medical institutions.[6]

The establishment of the All India Institute of Medical Sciences with a separate department for dermatology in 1960 under the stewardship of Professor KC. Kandhari, was a conspicuous landmark. The contributory health scheme and the employees state insurance scheme have got their own dermatologists. This development is significant along with the growth of other specialties in the metropolis of India.

POSTGRADUATE TEACHING IN INDIA

Bombay lead the way in postgraduate education. From its inception in 1926, Seth GS Medical College had the
post of honorary dermatologist and venereologist and an honorary lecturer. It also had an extern to assist the physician in the outpatient department. As the work in the department increased, an appointment of a resident registrar was made in 1930. In 1931, the house physician to the department of dermatology was appointed. The honorary dermatologist was entrusted the task of taking lectures and clinical demonstrations for the medical undergraduates.

In 1942, Bombay University appointed a committee to frame rules and regulations for a diploma in dermatology and venereology (DVD). It was a course of one-year duration and the first DVD examination was held in October 1945. In 1947, the College of Physicians and Surgeons (Bombay) allowed candidates to appear for their fellowship examinations in dermatology and venereology.

During the 1950s, some specialists appeared on the Indian scene. They had either qualified the Masters in Medicine with DVD (Bombay), or Diploma in Venereology (DV) from Madras University. Some had also qualified the membership examination of the Royal College of Physicians, UK, with dermatology and venereology as special subjects. These specialists now established the departments of dermatology in various medical colleges and hospitals. Notable among them were Dr. A.S. Thambiah (Madras Medical College), Dr. Sharat C. Desai (KEM Medical College), Dr. J.C. Shroff (JJ Hospital, Bombay), Dr. T.K. Mehta (Topiwala Medical College, Bombay), Dr. P.N. Behl (Irwin Hospital, Delhi), Dr. B.N. Banerjee, Dr. K.D. Lahiri (Calcutta Medical College), Dr. K.C. Kandhari (Amritsar Medical College, Punjab), Dr. K.N. Saxena (Agra), and Dr. M.P. Mathur (Jaipur). Soon, more than 80% of these posts were elevated to professor.

In 1956, AIIMS was established in New Delhi under an act of the parliament. It had departments of different medical specialties. In 1960, Prof. Kandhari was selected to head the department of dermatology and venereology [Table 1]. He took upon itself the responsibility to train teachers in the specialty so that they could man independent departments in medical colleges elsewhere in the country. It is interesting to note that many institutions are now headed by distinguished teachers trained at AIIMS. In 1961, the Indian Academy of Medical Sciences was established (now the National Academy of Medical Sciences) by the leading medical educationists. Distinguished members of different specialties were founding members. Dermatology was represented by Dr. R.V. Rajam, Dr. P.N. Rangiah, and Prof. K.C. Kandhari.

Thus, the stage had been set for beginning postgraduate teaching in the specialty. Since then, many more medical colleges have been recognized for training of postgraduates. A problem that has become evident over the years is the lack of uniform standards of education and nomenclature of the specialty and its various qualifications. Furthermore, the facilities in the form of outdoor and indoor services, laboratories, accommodation, and ancillary staff are too meager in some institutions even for undergraduate training. Postgraduate training in such institutions is unlikely. The postgraduate training program is designed to incorporate didactic lectures; bedside clinical demonstrations of inpatient cases and discussions of outpatient cases; seminars and journal clubs; instant office procedures; histopathology; and research, including thesis or dissertation. Several books

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<th>Year</th>
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<tr>
<td>1872</td>
<td>Deputation of Tilbury Fox and T. Farquhar to study skin disorders in India</td>
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<td>1875</td>
<td>Establishment of first chair of dermatology at Grant Medical College, JJ Hospital, Bombay</td>
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<td>1895</td>
<td>“Founder of Indian Dermatology” is bestowed on Major C. Fernandez, M.D. (Brussels)</td>
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<td>1923</td>
<td>Establishment of Department of Dermatology at School of Tropical Medicine, Calcutta</td>
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<td>1926</td>
<td>Establishment of first inpatient of dermatology at Seth Govardhandas Sunerdas (Seth GS) Medical College and King Edward Memorial (KEM) Hospital</td>
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<td>1935 (July 1)</td>
<td>Inauguration of Bombay Association of Dermatology</td>
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<td>1942</td>
<td>Bombay University appointed a committee to frame rules and regulations for a diploma in dermatology and venereology (DVD)</td>
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<td>1945</td>
<td>First examination of DVD, Bombay University</td>
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<td>1947</td>
<td>The College of Physicians and Surgeons (Bombay) allowed candidates to appear for their fellowship examinations in dermatology and venereology</td>
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<tr>
<td>1960</td>
<td>Establishment of Department of Dermatology and Venereology at All India Institute of Medical Sciences (AIIMS)</td>
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and monographs have been written for under and postgraduate training based on patterns of dermatoses in India. Another milestone in Indian dermatology was the plan of the IADVL textbook project by Prof. R.G. Valia and Prof. Leslie Marquis in order to fill a lacuna in teaching of dermatology. Its first edition was published in 1994. The third edition is about to be made available in the year 2008 for benefit of the postgraduates.

Presently, all the institutes having venereology department have been merged with the dermatology department and teaching institutes impart training to all postgraduates in all the three disciplines – dermatology, venereology, and leprosy. There is a great need for uniformity in postgraduate courses in dermatology. Like American Board of Dermatology, Indian Board of Dermatology may be set up for these purposes. Research facilities in postgraduate teaching departments are still meager in this country. Very few institutions can claim of good research facilities in dermatology for first-rate work.

It is desirable to have uniform nomenclature for postgraduate qualifications (degree and diploma) in the specialty awarded by various universities across the country. Diplomate of national board (DNB) also awards degrees equivalent to M.D. in dermatology, venereology, and leprosy.

In spite of having some share in the curriculum, dermatology remains a neglected subject because of its noninclusion in the qualifying examination at MBBS level. Knowledge of dermatology in interns and young practicing doctors has been found to be negligible. In fact, there has been no uniform standard of teaching for undergraduates anywhere in India until recently, when Medical Council of India (MCI) set new guidelines for MBBS teaching and curriculum content in dermatology, venereology, and leprosy.

Substantial contributions have been made in the study of leprosy in India by Muir, Rogers, John Lowe, and Dharmendra in the School of Tropical Medicine, Calcutta. In such centers, specialized work is being done at School of Tropical Medicine, Calcutta, Leprosy Hospital Chingleput, Madras, and Vellore. Paul Brand at Vellore has made a great contribution in the treatment of crippled leprosy patients by reconstructive surgery.

Original work has also been done in this country on syphilis, lymphogranuloma venerum, donovanosis, mycotic infections, and vitiligo by group of workers in Madras, Calcutta, and Delhi.

Contributions of Dr. J.S. Pasricha need to be remembered in independent India. His contribution in exploration of various causes of contact dermatitis is worth mentioning. He also modified concept of pulse therapy to achieve cures in some of the most fatal and the so-called incurable diseases such as pemphigus, systemic sclerosis, and systemic lupus erythematosus.

IADVL REMEMBERS LUMINARIES

It is befitting to remember those revered dermatologists and great teachers who made major contributions during their life time, but they are not with us anymore

PRESENT ERA OF DERMATOLOGY

Our triple specialty (dermatology, venereology, and leprology) has come of age and now a number of subspecialties/superspecialties have made significant strides over the last few years.

Whereas there was ample interest in STDs and leprosy 40-years ago, today there is a significant emphasis on dermatsurgery, dermatopathology, pediatric dermatology, contact and occupational dermatoses, cosmetology, HIV medicine, and lasers – a paradigm shift of interest. This gives you an idea of which direction dermatology is heading and it is for us as an association to nurture these emerging interests. For this, we need to start from the basics, which is to try and lay emphasis on the proper training of students in dermatology. We need to advise the board of studies of our universities to update the curriculum in dermatology to include those subjects of current interest. It should also prescribe a period of hands-on experience in those subjects before completion of the course.

Since 20–30% of cases in pediatric practice have dermatological problems, a need was felt to constitute Indian Society for Pediatric Dermatology (ISPD). It came into existence in 1996 and two years later the first issue of Indian Journal of Pediatric Dermatology rolled out of the press. The first national conference
Table 2: IADVL remembers luminaries of independent India

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<th>Personalities</th>
<th>Place of work/major contribution/awards received</th>
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<td>Dr. Surinder Kaur[13] (07.03.1933–12.10.2004).</td>
<td>Started the Department of Dermatology, Venereology and Leprology at PGIMER, Chandigarh Major work done in the field of systemic involvement in leprosy Received Kanishka Award and Hari Om Ashram Award of the Medical Council of India</td>
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<td>Dr. Ajit Kumar Dutta[14] (1930–2004)</td>
<td>MD in Dermatology from Calcutta University in 1976 Major work was in the field of vitiligo; <em>Etiopathogenesis of vitiligo and its management</em> won him the ‘Award of Merit’ from the Skin Institute, New Delhi His monograph <em>Neural implications in vitiligo</em> was awarded the ‘Certificate of Honor’ by the Scientific Committee of the Castellani-Reiss Award at the fifth International Congress of Dermatology at Mexico (1984). He was editor of Indian Journal of Dermatology in 1980. He contributed to the chapter on pigmentary disorders in the IADVL textbook of Dermatology and was coauthor of the book <em>Occupational and Industrial Dermatoses</em></td>
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<td>Dr. B.K.H. Nair[15] (10.06.1933–03.07.2004)</td>
<td>He was a pioneer of dermatology and venereology in Kerala, he joined the Trivandrum Medical College, as a tutor in dermatovenereology in 1958 and retired from the same institution as Director and Professor in 1988. He established and developed the departments of dermatology and venereology in Trivandrum, Kottayam and Alleppey Government Medical Colleges. Also, he did significant research on scabies, leprosy, syphilis and cutaneous granulomas. He was the founder secretary of the Kerala branch of IADVL and later its president. He received several awards, including the Prof. K. C. Kandhari Award for Lifetime Achievement, awarded in the year 2000.</td>
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<td>Dr. Sharat C. Desai[16] (11.06.1917–19.08.2004)</td>
<td>Established the first Department of Dermatology in India at King Edward Memorial Hospital, Bombay Created the first residency program in dermatology. Produced eminent dermatologists such as Dr. V. R. Mehta, Dr. Rui Fernandez, Dr. Chetan Oberai, and Dr. Bharat Shah; Dr. Desai's best academic contributions were in dermatologic mycology, and in initiating and fostering dermatopathology; Organized the first ever International Conference of Dermatology in India, in Mumbai, in 1961</td>
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<tr>
<td>Dr. B. V. Satyanarayana[17] (30.1.1927–15.8.2005)</td>
<td>The “doyen of dermatology” in Andhra Pradesh. The first qualified dermatovenereologist in India, with an MD (Dermatology) from AIIMS. He started postgraduate courses in dermatology, Diploma in Dermatology in 1964, and MD in Dermatology in 1967, and was the architect in formulating the syllabus and structure of Diploma in Leprology course.</td>
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<td>Dr. V. L. Rege[18] (28.4.1939–09.03.2006)</td>
<td>He practically started the department of Dermatology and Venereology in Goa Medical College (GMC). He was instrumental in founding The Goa Association of Dermatologists</td>
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on pediatric dermatology was organized in November 1996. From then on, the organization holds a national conference every year. A full-fledged Journal, “Indian Journal of Pediatric Dermatology” (IJPD), dealing exclusively with issues pertaining to pediatric dermatology was first published in 1998 and two issues are published each year giving the dermatologists a new forum to discuss and highlight various cases and issues pertaining to pediatric cases.

Until recently, dermatology remained purely a medical specialty in India, although our Western counterparts worked exhaustively on its surgical dimensions.[24] The last 20 years or so have witnessed a tremendous growth and dermatologists have adopted various surgical techniques and associations like Association of Dermatological Surgeons of India (now, Association of Cutaneous Surgeons of India), and Cosmetology (now Cosmetic Dermatology) Society-India (CSI) have been established. Advent of lasers in India for treating various skin diseases is relatively new, but the number of these laser clinics are mushrooming, especially in big cities.[25]

In this era of globalization, the mantra to success is quality control. For the comprehensive development of our specialty, the most important quality control measures need to be aimed at teaching institutes. Other fields that require quality control are cosmeceuticals and pharmaceuticals. Leave aside the mention of
ingredients of cosmetics, the herbal umbrella provides impunity to incorporate harmful chemicals.[19]

A disturbing trend that one comes across these days is the enormous amount of propaganda in the lay press about ‘cures’ for a number of skin conditions by alternate system of medicines. While we have no quarrel with any other system of medicine, false information has to be counteracted by giving the public the correct information in the press by way of informed articles.[20]

Although, in Western countries and USA, dermatology is a much coveted subject with huge allocation of funds and ample research opportunities, in India this subject has not received its due attention. Even today, the dermatologist in India has a wide armamentarium of drugs and technologies available to their Western counterparts. This has made the options of therapy for many skin disorders much wider than before.

The advent of corticosteroids in 1950s has helped us treat a number of inflammatory skin conditions, leaving behind a large number of untreatable conditions like vascular and pigmented nevi, tumors, scars, tattoos, and unwanted hair. All these conditions are now treatable with the help of lasers. However, the exorbitant cost of this equipment has put these tools in the hands of business enterprises that will treat only conditions of commercial interest.[20]

Recent advent of evidence-based medicine has made the dermatologist ponder about the correct application of modern scientific knowledge in the clinical practice of our discipline. Here, therapeutic approaches to disease are recommended on a review of the available scientific studies that have been suitably designed, carefully conducted, scrupulously analyzed, and more importantly, correctly interpreted. This should allow good quality scientific information to contribute to our decision-making in clinical practice.

We are privileged to have witnessed a historical moment – the end of the twentieth century and the dawn of a new millennium. Although significant progress has been made, there is a lot to be done. Running through the pages of a contemporary textbook of dermatology, we are disappointed to realize that most skin conditions remain of unknown or obscure, or incompletely understood etiology and pathogenesis. We have felt embarrassed to admit to our patients that we are almost unaware of what causes common dermatoses, such as psoriasis, vitiligo, alopecia areata, or atopic dermatitis. We must strongly hope that, in the twenty first century, emphasis should be placed on revealing and elucidating the etiopathogenesis of skin diseases. This will be the key for definitive treatment and, most importantly, for effective prevention.

The human life span has considerably extended, resulting in a growing proportion of elderly people in the population. Necessary adjustments in dermatological services should be implemented in order to face this new reality. Prevention of skin changes of chronoaging is an issue of increasing concern, and steps in this direction include the recognition of solar radiation as an important inducing factor of aging and the beneficial effect of topical retinoids in both extrinsically and intrinsically aged skin. In addition to aging of the population and excessive sun exposure, the depletion of the ozone layer is expected to result in an explosive rise in nonmelanoma skin cancer (NMSC) incidence.

Teaching of future dermatologists, and their continued education, especially via use of the computers and internet, and how to keep up with the new information are the new challenges facing our colleagues.[26]

COMMUNITY DERMATOLOGY IN INDIA

Forty years ago, there was just a score of dermatologists in India. In 1991, Ministry of Health and Family Welfare put their number around 2000 for a population of 843 million. Now the situation is much better. However, these dermatologists are concentrated in the cities and large towns. The rural population, which is around 80% of the total, has no easy access to a dermatologist.[25]

Regarding the quantum of dermatological problems in the community, a reliable estimate is that one in twenty people has a skin disease in India.[27] An analysis of records of out-patient attendances of primary healthcare centers had found that 25–35% of these patients had dermatological problems.[28] Ten common skin diseases seen in primary health centers are scabies, pediculosis, tinea, leprosy, vitiligo, pityriasis versicolor, pityriasis alba, dermatitis, urticaria, impetigo, and boils.[25]
CONCLUSIONS

Dermatology is a very dynamic subject with multiple advances in various fields including dermatosurgery, dermatopathology, genetics and molecular research, melanocyte research, Lasers, cosmetic dermatology, etc. Availability of various new therapies including lasers, botox, dermal fillers, biologicals, and immunoglobulins for treatment of various disorders have created a lot of excitement among the young dermatologists although the senior and eminent dermatologists still prefer to restrict themselves to the time-tested older therapies. Napolean Bonaparte said “glory is fleeting but obscurity is forever” so to conclude, we pay our respect to scores of dermatologists who silently served their patients. They may not have found their names in pages of history but shall be remembered by their patients in their hearts for the services rendered to them. There is certainly a need for rediscovering the best in the old indigenous systems of India and their incorporation into the modern practice. As Einstein put it “concern for man himself and his fate must always form the chief interest in all technical endeavors. Never forget this in the midst of your diagnosis and quotations”. [1]

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