President Address

Presidential Address by Dr. Naga Varaprasad Vemuri

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¹President, Indian Radiological and Imaging Association (IRIA), 2024

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I extend my heartfelt gratitude to Dr. Umesh Krishnamurthy for his generous introduction and for entrusting me with the honor of serving as the President of Indian Radiological and Imaging Association (IRIA) for the year 2024.

Esteemed dignitaries, revered faculty members from across the globe, valued delegates from within and outside our country, our technology and trade partners, and members of the media and press, I extend to you all my warmest wishes for the New Year and an advance wish for a joyous Republic Day.

Let me thank all the 24,000 plus members of IRIA for electing me unopposed as the 77th President of IRIA.

Standing here today as the 77th President of the IRIA, amid the bustling commercial and educational landscape of Andhra Pradesh, I am deeply moved by the profound legacy of our distinguished association and the historical significance of this region. The area of Vijayawada and Guntur, where we are gathered, holds immense historical value as the land where Acharya Nagarjuna, often revered as the “Second Buddha,” imparted his invaluable teachings. Vijayawada is ranked as the 6th cleanest city in India in Swatch Sarvekshan by the Government of India.

Our journey began as the Indian Radiology Association on April 21, 1931 in Calcutta, the erstwhile capital of British India. In March 1937, our association was formally registered with an initial group of 24 pioneering radiologists. Our association proudly spans across 24 states, with active chapters in numerous cities.

Our esteemed and internationally acclaimed journal, the "Indian Journal of Radiology and Imaging (IJRI),” which first went into publication in 1947, the year of our Independence, continues to be a cornerstone of our academic excellence.

The “Indian College of Radiology & Imaging (ICRI),” established in 1976, has been pivotal in steering and overseeing the academic pursuits of our association. In my role as an office bearer of the ICRI for the past 4 years, I have witnessed first-hand the remarkable strides we have made in bridging educational gaps in radiology. Our daily online teaching sessions have become a testament to our commitment to continuous learning and have significantly contributed to enhancing the knowledge and skills of our members. The latest achievements include the publication of the Textbook of Clinical Radiology, the Starting of the Research and Education wing, the Samrakshan Program, the Preventive Radiology program, academics by ICRI, courses like Certificate Course in Fetal Radiology Genetics, How We Do It sessions, Masters in Clinical Radiology, Sub-specialty Fellowships (F-ICRI).

Future Goals

Following are the goals of our association:

1. “Our IRIA” Initiative: This program is centered on fostering a sense of community and belonging within our association.
2. Prioritizing the Profession: Placing a strong emphasis on the core values and ethics of our profession.
3. Elevating Indian Radiology Residency Standards: A commitment to enhancing the training and development of radiology residents in India.
4. Launching the “Indian Standards” Initiative: A project aimed at establishing the Indian normal values and radiological measurements.
5. Enhancing Quality and Safety in Imaging: Focusing on improving the overall quality and safety protocols in radiological practices across India.
6. Dismantling the Barriers of Knowledge: An effort to expand the horizons of knowledge and learning within the field of medicine.

“Our IRIA” Initiative: The initiative embodies the ethos and commitment of the IRIA to its members. Our guiding principle is the unwavering support for each member of our community. This initiative is grounded in the belief that the strength of our association is directly reflective of the
engagement and belief of its members in the collective vision of IRIA.

In this spirit, we are dedicated to standing by every member, providing support for any professional challenges they may face. This includes addressing any instances of harassment faced by IRIA members, where we will engage in both legal and political advocacies to ensure their protection and rights.

Moreover, the initiative recognizes that the growth and advancement of each member are synonymous with the development of IRIA itself. Radiologists should be at the forefront of medical specialties, often acting as consultants to other consultants. To this end, we are committed to offering intensive training programs that ensure our members are equipped with the highest level of expertise in their field.

The role of district coordinators for each district of each state is vital, as they will be the direct contact of IRIA HQ members. Hence, my humble request to each state chapter is to appoint coordinators for each district to interact with members.

Collaboration with the National Board of Examination will be a cornerstone of this initiative, facilitating the launch of new fellowship courses in various subspecialties under radiology. This will not only provide our members with opportunities to deepen their expertise but also ensure that they remain at the cutting edge of the field.

Subspecialty fellowships and certificate courses, tailored specifically for our members, are designed to cater to the evolving needs and areas of interest within the radiological community. A key aspect of this initiative is the continuation of dedicated fetal medicine workshops. These workshops, exclusive to radiologists, will be conducted in all states across India. They are aimed at providing specialized training and knowledge in fetal medicine, further enhancing the capabilities of our members in this critical area of radiology.

Active participation and contribution from our members are vital for the success of this initiative. We encourage each member to engage fully with these opportunities, as their growth and development are integral to the collective progress and evolution of IRIA.

Prioritizing the Profession: This initiative underscores our commitment as radiologists to serve as dedicated healers in society. We must continually enhance our skills and knowledge to benefit the communities we live in, ensuring that our profession remains a top priority in our endeavors.

A critical aspect of this initiative is addressing the ongoing issue of female feticide in certain parts of the country. While no member of IRIA is believed to be involved in this grave offense, the radiology community often faces unwarranted blame. We are devoted to safeguarding the female gender at every stage of life, from fetus to adulthood.

In light of this commitment, our flagship program “Raksha,” aimed at preventing the systematic elimination of the female gender is well recognized by public authorities. We recognize that sonologists, sonography technicians, and unqualified practitioners are often implicated in these crimes. As qualified radiologists, it is our responsibility to ensure that anyone contributing to the crime of female feticide is identified and brought to justice, thereby creating a safer environment for our practice.

We acknowledge the challenges posed by the PC-PNDT Act, including its deficiencies and overly harsh provisions. While we are bound to comply with the law, we also strive to address its unreasonable aspects, such as the disproportionate punishment for minor clerical errors and the limitation of a qualified radiologist’s services to only two centers. The association is committed to engaging with the relevant authorities to amend these irrational clauses.

Moreover, we advocate for stringent eligibility criteria for performing ultrasound imaging, emphasizing the need for a radiology qualification. We appreciate the Medical Council of India’s support in this regard and hope for favorable directions from the Honorable Supreme Court of India.

In terms of radiography equipment usage, we are actively engaging with the Atomic Energy Regulatory Board (AERB) to propose mandatory requirements for radiology-qualified doctors to operate high-end X-ray machines, computed tomographic scans, and catheterization laboratories. Similar to the PNDT license now required for magnetic resonance imaging (MRI) machine purchases, we believe that the presence of a radiologist should be compulsory wherever MRI machines are installed. MR safety is also a big concern nowadays as internationally various programs are being conducted as a part of awareness of MR safety.

Furthermore, following the Medical Council of India’s mandate requiring a pathologist’s signature on every pathology report, we propose that any radiology and imaging report should mandatorily bear the signature of a qualified radiologist. This step is crucial in maintaining the integrity and accountability of radiological practices and ensuring the highest standards of patient care.

Elevating Indian Radiology Residency Standards: Radiology, a highly sought-after specialty in Indian medicine, has consistently been the top choice for many of the country’s top medical students over the past three decades. This preference stems from the vital role of diagnostics in patient care, particularly in the context of evidence-based medicine. Furthermore, the rapid advancements in imaging technology have significantly increased the demand for skilled radiologists.

Our objective with this initiative is to cultivate radiologists who are not only competent and safe in their practice but also adept at conducting and interpreting a range of diagnostic and interventional imaging studies. These professionals should be capable of engaging in teaching and research activities.

However, we recognize that there are inconsistencies and gaps in the current training framework, particularly in research methodology, publication skills, and effective communication. The ICRI efforts to reach all students have been met with enthusiasm from teachers, but there’s a notable lack of reciprocal interest from students. The focus should not be solely on passing exams but also on developing skills that benefit society at large.
To address these gaps, a key focus will be on incorporating training in research methodology. This begins with educating our educators through specialized workshops in research methods. We believe in a more proactive and engaging approach to reach our students, moving beyond traditional didactic lectures.

To achieve this, we plan to launch a social media initiative, drawing inspiration from successful campaigns by worldwide organizations. This will involve utilizing popular social media platforms to connect with and engage the student body more effectively. Our aim is to create a more interactive and accessible learning environment, adapting to the changing dynamics of education and communication in the digital age. This initiative is a step toward ensuring that our radiology residents are not just academically proficient but are also well-rounded, socially aware, and ready to contribute positively to the field and society.

**Launching the “Indian Standards” Initiative:** The “Indian Standards” initiative is a ground-breaking step toward recognizing and addressing the unique physiological differences in the Indian population compared with Western or Eastern standards. Historically, our measurements and medical standards have largely been based on Western data, which may not accurately reflect the anatomical and physiological nuances of the Indian demographic.

This initiative emphasizes the importance of developing a set of radiological measurements and standards tailored specifically to the Indian population. Understanding that our body habitus and physiological parameters differ significantly from those commonly referenced in Western medical literature, it becomes imperative to establish a more relevant and accurate set of measurements.

A crucial aspect of this initiative is the education and training in research methodologies. This will enable us to systematically measure key values nationwide, paving the way for the creation of a comprehensive “Indian Book of Radiological Measurements.” Such a resource would be invaluable in ensuring more accurate diagnoses and treatments that are better suited to our population.

Leveraging the advancements in artificial intelligence, we aim to simplify and streamline this process. The vision includes the development of a software tool that can be integrated into the practices of our members. This tool would facilitate the collection and sharing of data, which, in turn, would contribute to the development of a robust database of normal values and standard measurements for the Indian population. This collective effort will significantly reduce interobserver variability and enhance the accuracy of radiological interpretations.

I am aware that this is an ambitious project, a “tall order” indeed, but the association has a history of turning seemingly impossible dreams into reality. We have previously seen this with the successful reduction in perinatal mortality through the effective use of the Samrakshan methodology. I am confident that, with our collective effort and commitment, we can achieve similar success in developing and establishing these vital Indian radiological standards. This initiative is not just about setting benchmarks; it is about revolutionizing the way we approach radiology in India, making it more relevant, accurate, and effective for our population.

**Enhancing Quality and Safety in Imaging Initiative:** This initiative places a high priority on establishing robust safety standards within the field of radiology. Recognizing that there are numerous misconceptions and poorly informed perspectives at the general educational level regarding radiology, such as the risks associated with radiation and cancer, issues related to contrast media, and metal-related concerns in MRI, this initiative aims to address and rectify these issues.

While the AERB has been commendable in framing necessary legal regulations, there is a pressing need for the radiological community to take proactive steps in auditing and developing safe practices. It is imperative that we, as a collective body, develop standardized safety protocols that are specifically tailored to the Indian medical ecosystem. These protocols should be practical, achievable, and effective in safeguarding the broader society.

A key element of this initiative is the formation of a collaborative body involving accreditation authorities, radiation safety officers, and government organizations. This body, under the auspices of IRIA, would be responsible for continuously delivering updates and guidelines on safe practices, functioning as a living document that evolves with advancements in the field.

In terms of quality assurance, the development of specific quality indicators for radiology departments is essential. One proposed measure is the implementation of a certification system for second readings through software applications, serving as a stringent quality indicator. Additionally, the development of realistic turnaround times and standard operating procedures for various radiological procedures is crucial.

While the complete realization of these goals may extend beyond my tenure, my vision is to establish a dedicated unit under IRIA. This unit would continually guide and educate our members, while also providing standardized documents for a robust legal framework. The establishment of this unit is a step toward a future where the quality and safety of radiological practices are not just assured, but exemplary, setting new benchmarks in healthcare.

**Dismantling the Barriers of Knowledge:** We recognize the transformative impact of emerging technologies such as AI, VR/AR, 5G, and nanotechnology in medical fields, including radiology. These advancements facilitate early detection, improved diagnostics, and personalized treatments, steering healthcare toward greater efficiency and patient-centricity.

We will restart Outreach Programs with dedicated teachers and try to bridge the gaps.

In the realm of radiology, as in other medical specialties, there is a growing trend toward subspecialization, largely influenced by Western practices. This trend, while enriching the depth of knowledge, should not lead us to underestimate the breadth of understanding across various disciplines. I recommend reading David Epstein’s “Range: Why Generalists Triumph in a Specialized World” to appreciate the value of a broader knowledge base alongside subspecialization.
During my tenure, I am committed to initiating dialogue and developing methodologies to broaden our professional scope and integrate more multidisciplinary approaches within radiology.

In conclusion, I find myself deeply inspired by two profound dictums from some of the most brilliant minds in human history—Charles Darwin and Albert Einstein. Darwin famously stated, "It is the long history of humankind [and animalkind too] those who learned to collaborate and improvise most effectively have prevailed." This speaks to the necessity of adaptation for evolution, emphasizing the power of collaboration and improvisation as key drivers of progress.

Einstein eloquently expressed, "Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, and giving birth to evolution. It is, strictly speaking, a real factor in scientific research." This highlights the limitless potential of imagination as a catalyst for progress and evolution, surpassing the bounds of existing knowledge. This is the reason this conference theme is kept as "Imaging beyond Imagination."

As we face a rapidly evolving technological landscape, particularly in the realm of imaging, these insights are especially pertinent. Technology is advancing swiftly and disruptively, compelling us to adapt and evolve. In the field of imaging, we must not become complacent but remain imaginative and forward-thinking, ready to embrace and adapt to the changes that lie ahead. Indeed, the future of imaging is poised to transcend our current expectations and imagination.

**IJRI**: We will try to increase the frequency of publications to decrease the waiting period for articles. We will start a mentorship program for research and publication so that the enthusiasm starts from the early days of radiology residency.

**Financial Literacy**: We are the poorest managers of wealth; let it be knowledge or money so we can have a group of experts who can sensitize our radiologists about proper investments.

I thank all my teachers, colleagues, seniors, dear friends, and family members for their continuous support and guidance especially Dr. Hemanth Patel, Dr. Prabhakar Reddy, Dr. Amarnath, Dr. Muralikrishna, Dr. Pankaj Sharma, Dr. Raghav Aggarwal, Dr. Ankur Shah, Dr. G.V. Mohanprasad, all the members, and office bearers of IRIA and specially APIRIA and to my loving wife and kids.

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**Conflict of Interest**

None declared.