
Review open access Article**Veeraswamy Seshiah: Father of Gestational Diabetes in India**N Bhavatharini ¹, Aruyer Chelvan ², ARA Changanidi ³, Rajesh Jain ⁴

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Corresponding author: Rajesh Jain, jainhospitals@gmail.com**Submitted: 10 Oct 2024; Accepted: 27 Oct 2024; Published: 29 Oct 2024****Abstract**

Professor Dr. V. Seshiah, MD, FRCP, DSc, (Hony), is a distinguished professor at Tamil Nadu's Dr. MGR Medical University and established the First Department of Diabetology in India at Madras Medical College in 1978. He was the patron of the Research Society for the Study of Diabetes in India and the founder patron of the Diabetes in Pregnancy Study Group, India (DIPSI). Additionally, he served as the Vice-Chair of the Executive Board of the International Association of Diabetes and Pregnancy Study Group. Dr. V Balaji and Dr. V Seshiah Diabetes Care Center & Research Institute, which he founded, received the Army Decorations "SAMAR SEVA STAR" and "SAINYA SEVA MEDAL" in 1965 with clasp HIMALAYAS. Dr. Seshiah was also the recipient of the DR. B.C. ROY National Award was given in 1988 for developing diabetology as the Indian College of Physicians provided a specialty in the country and the Master Teacher Award. Moreover, he was honored with the Lifetime Achievement Award by the International Diabetes Federation in 2017, being the first Indian to receive this award. In 2022, the President of India, Mr. Kovind, presented the Padma Shri to Dr. Veeraswamy Seshiah for Medicine.

Categories: Endocrinology/Diabetes/Metabolism, Public Health, Health Policy**Keywords:** dipsi, diabetes in pregnancy study group of india (dipsi) criteria, gestational diabetes mellitus (gdm), diabetes gestational, "historical vignette"**Introduction and Background**

Prof V Seshiah is an honorary distinguished professor of life at Tamil Nadu's Dr. MGR Medical University, Chennai. He entered his 86th year on 10 March 2024 (now 86 years). Prof Seshiah is a visionary, an astute clinician, and a teacher of par excellence, and he is revered as the Father of Diabetes in India (Figure 1) [1]. One must know the length and depth of his work as an author and authority in diabetes, especially gestational diabetes. His work on diabetes has continuously enlightened clinicians' day by day, year by year, and decade by decade. Path-breaking evidence has become a source of guidance and reference in practice and policy decisions. His topics span all diabetes, especially hyperglycemia in pregnancy, epidemiology, and therapeutics.



FIGURE 1: Veeraswamy Seshiah

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Prof Veeraswamy Seshiah was born in Perambur, North Chennai, Tamilnadu, on March 10 1938 to Mr. V V. Veeraswamy and Mrs. Bavanamma (a person with an aura of gold appearance). Prof Seshiah's father worked in the Railways, and his mother was a homemaker. Other family members were his elder brother, Prof Dr. V Perumal, and a younger sister, Ms. Gajalaxshmi. His brother served as director of drug control in Tamil Nadu, and his sister was a housewife.

The family lived at (Madras) Chennai throughout. Prof Seshiah, in his childhood, had been a frank and obedient child. Remembering an unforgettable incident, he said he met with an accident when he was five years old. They were asked to vacate and move out of Madras during the Second World Wartime to a village near Tindivanam. Once, he fell when he had a joy ride on a bullock cart with his playmates. His head came under the cart's wheel, and it was a massive tearing of skin and scalp. It took months to recover from that injury, and that big scar is still present on the right lateral side of his scalp. Humorously, he said that he became very brilliant after that accident!

Prof Seshiah's family played a significant role in shaping his career. His father initially wanted him to pursue engineering, but his elder brother encouraged him to try Medicine and Engineering after he failed to get through. When he succeeded in the medical entrance, his brother supported his decision to pursue Medicine. His family support and determination led him to join the Madras Medical College in 1957, marking the beginning of his illustrious career. In 1962, during the Chinese war, there was a shortage of volunteers joining the army; Prof. Seshiah volunteered to join the Indian Army as a Lieutenant in the Army Medical Corps. In 1963, he became captain and was posted as a medical officer for the 1/3 Gurka battalion and then for the 7th Bihar infantry battalion in Jammu and Kashmir. In 1965, he participated (Figure 2) [1].

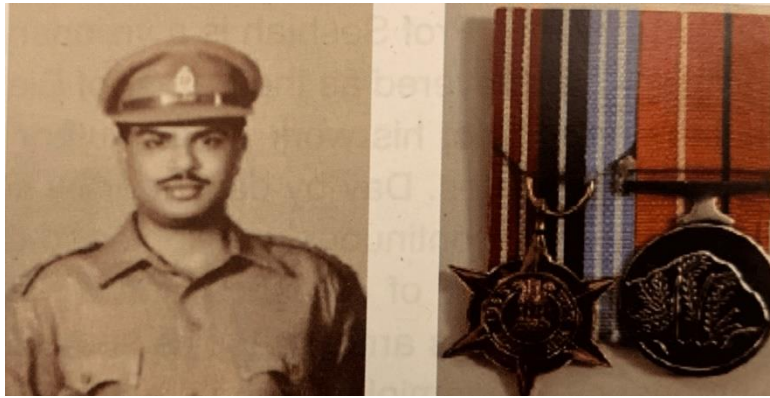


FIGURE 2: Young Dr. V Seshiah in the Indian Army

Credit: V Seshiah

He participated in the war at "Uri Poonch" Bulge, J&K. In recognition of his service in the war theatre, he was awarded two prestigious awards: the "Samar Seva Star 1965" and the "Sainya Seva Medal" with a clasp Himalayas [2].

After completing his Army service, Prof Seshiah joined the Tamil Nadu Medical Service. While serving as an Assistant Professor of Medicine at Madras Medical College, he predicted that diabetes would become a widespread epidemic. In 1978, he established the first "Specialty Department of Diabetes" at Madras Medical College [3], the first of its kind in the country. At 40, Prof Seshiah became one of the youngest Professors.

Recognizing the need to train physicians in this specialty, he initiated the "Postgraduate Course in Diabetology," which was later recognized by the Medical Council of India. In 1980, he established the first "Feto-Placental-Maternal Unit" at the Institute of Obstetrics & Gynaecology, Government Maternity Hospital in Chennai. In 1988, in acknowledgment of his influential work in developing the field of Diabetology, he was honored with the prestigious "Dr. B.C. Roy National Award." This award is the highest recognition for medical professionals by the Medical Council of India and is presented to the President of India. Prof Seshiah received this esteemed award from President Shri. R. Venkataraman [3].

Review

Prof. Seshiah was honored with several awards for his academic, clinical, and research contributions, including the following: "Distinguished Member Award" from the Association of Physicians of India; "Master Teacher Award" from The Indian College of Physicians; "Doctor of Science (Honoris Causa) award" from Tamilnadu Dr. MGR Medical University, Chennai; Fellowship of the Royal College of Physicians, Glasgow; "Lifetime Achievement Award" by Tamilnadu Dr. MGR Medical University, Chennai and First Indian to receive the Lifetime Achievement Award from the International Diabetes Federation (IDF) [4].

When we asked what inspired him to work on Gestational Diabetes, Prof. Seshiah said he owes it to his mentor, Dr. Sam. G. P. Moses, and his brother, Dr. V. Perumal, for being the source of inspiration and guidance. During a dinner at the Wien River cruise in 1979, Prof. Moses advised Prof. Seshiah to visit Aberdeen, Scotland (Figure 3). This visit allowed him to witness the integrated care of patients with gestational Diabetes, a pivotal moment that set his journey in motion [4].



FIGURE 3: Left, Prof Sam G P Moses, and Right, Prof Seshiah in IDFCongress. Vienna 1979

His pioneering effort was to launch for the first time in the country the Diabetes in Pregnancy Awareness and Prevention Project" supported by the Government of Tamilnadu and the World Diabetes Foundation (2004-2006). Based on the prevalence of GDM data, the Government of Tamilnadu issued an order making screening for gestational Diabetes mandatory in Govt health facilities in 2007, popularly known as the "Tamilnadu Model." Finally, after all these publications and the community-based Diabetes Project with the Tamilnadu Health Department, Ministry of Health & Family Welfare, the Government of India was instructed to follow this single test procedure [5-6].

Another key figure in Prof. Seshiah's journey is Prof. A. Ramachandran, a Senior Diabetologist in Chennai. Prof. Ramachandran introduced Prof. Seshiah to Dr. Gojka Roglic of WHO. This introduction led to a significant collaboration, with Dr. Roglic inviting Prof. Seshiah to co-author "Strategies for Implementing the WHO Diagnostic Criteria and Classification of Hyperglycaemia First Detected in Pregnancy" [7]. This collaboration further expanded Prof. Seshiah's influence in the field of gestational Diabetes.

Professor Seshiah has extensively covered gestational diabetes mellitus in his publications. He considers his most notable contribution to the medical field to be the "Single Test Procedure" for diagnosing gestational Diabetes, published in the International Journal [8]. The World Health Organization (WHO) has also approved this diagnostic procedure. His work has also focused on early screening for gestational Diabetes, its public health relevance and approach, and insulin analog therapy in pregnancy with Diabetes. Prof Seshiah has published in more than 200 peer-reviewed national and international journals. He is also an invited speaker at national and international forums. He wrote a book, "A Handbook on Diabetes Mellitus," in its 8th edition, the most popular book among physicians and postgraduate students.

He has contributed chapters in the "Text Book of Medicine Association of Physicians of India," the Text Book of Diabetes, the Research Society for the Study of Diabetes in India, the International Textbook on "Diabetes in Pregnancy" Intech Publications, and Informa Healthcare publications. He has edited books on Diabetes and pregnancy for Elsevier and MacMillan publishing houses, "Uncontrolled Diabetes" for Kontentworx, and "Contemporary Topics in Gestational Diabetes Mellitus for Jaypee Publishers.

Given Prof Seshiah's expertise in gestational Diabetes, he was invited to talk at the Global Alliance for Women's Health meeting" at the UN headquarters as a representative from India. He was a member of the Taskforce Committee of the Indian Council of Medical Research and the Expert Review Committee of the International Diabetes Federation and the World Health Organization. He is the Patron of the Research Society for the Study of Diabetes in India. He is also the founder and patron of the Diabetes in Pregnancy Study

Group, India (DIPSI), formed in 2005. He was Chairman of the D.Sc. Selection committee of Tamilnadu, Dr. MGR Medical University. He is the Vice-Chair of the International Association of Diabetes and Pregnancy Study Group (IADPSG). He was also a member of the "Expert group of the technical and operational guideline on gestational diabetes" of the Ministry of Health, Govt. of India [9].

He enjoyed working with his collegial group on gestational Diabetes the most. He believes it was a remarkable journey that provided mentorship to many future Diabetes stars and humbly included them. Prof. Seshiah's workplace is not just a place of work but also a temple and a place of worship. He never misses a day except for professional reasons, believing that as a physician, he must always be present to serve. His high sense of duty and astute clinical skills have earned him the trust of many, including prominent figures like Dr. MGR and Madam J. Jayalalithaa, the erstwhile Chief Ministers of Tamilnadu State, who frequently consulted him in the initial years after the diagnosis of Diabetes [9].

Prof. Seshiah and other senior diabetologists recommend the use of Metformin starting from the 8th week of pregnancy to prevent gestational Diabetes [10]. He emphasizes that when fetal insulin secretion begins, there are changes in maternal metabolism. Hyperglycemia can lead to non-communicable diseases in life, making the prevention of gestational Diabetes crucial. It is considered the mother of non-communicable diseases, and efforts to prevent them can significantly impact public health. Prof. Seshiah also stresses the importance of avoiding transgenerational transmission [11] of Diabetes.

On a personal front, Prof. Seshiah's wife, Mrs. Janobai, is a homemaker with BA BT qualifications. This personal insight into Prof. Seshiah's life helps to humanize him, making him more relatable to the audience (Figure 4). He has two daughters and one son. The first daughter, Radhika, a Nutritionist by profession, is married to Captain Radhakrishna Reddy. He is settled in Chennai and blessed with a daughter, Rohini, a qualified ENT Surgeon with an MS Degree. Second, Dr. Madhuri S Balaji is a practicing diabetologist who cares for his institute and her husband, Prof Dr. V Balaji, Consultant Internal Medicine and Diabetologist. They are blessed with one daughter, Taarika, who is studying Medicine at Saveetha Medical College. His son, Dr. Puvi Narayanan Seshiah, is an Interventional Cardiologist in Cincinnati, US. He is married to Christina and blessed with two daughters, Avani and Meghana.

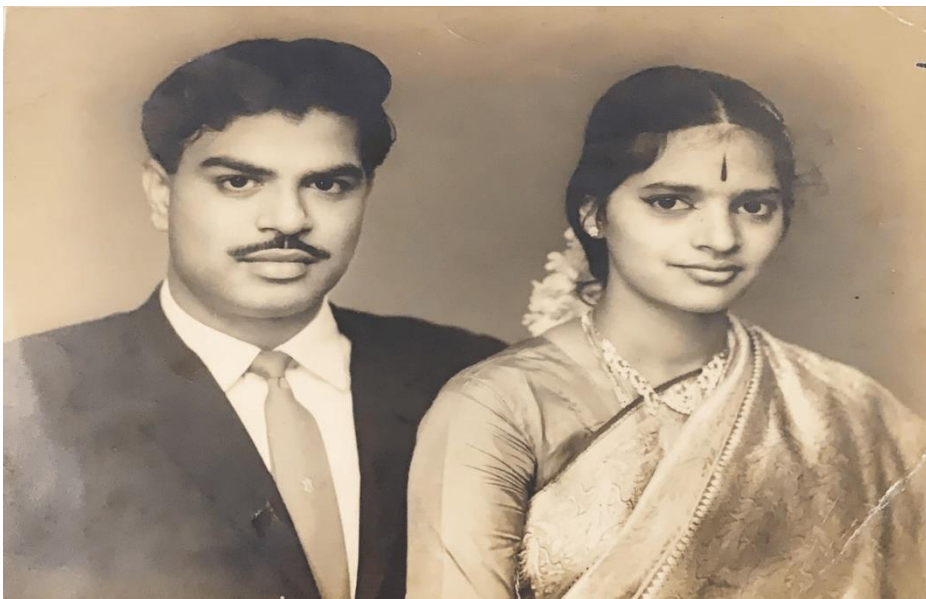


FIGURE 4: Eternal Couple, Married on 29th August 1966

Credit: V Seshiah

Recently, He received the Padma Shri award from the President of India for his Contribution to Medicine in 2022(Figure 5).



FIGURE 5: Honorable President of India, Mr. Ram Nath Kovind Presents Padma Shri to Dr. Veeraswamy Seshiah for Medicine

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Conclusions

It is difficult to sum up, but we will say, "We all should remain as focused and enthusiastic as Prof. V. Seshiah. He is a role model for all Diabetologists and has put in relentless efforts and countless hours to improve the quality of diabetes care in India. He has inspired us to follow in his footsteps, and people respect him as the Bhishma Pitamah of Pregnancy Diabetes in India." The Government of India, in recognition of his exceptional service to medicine, bestowed upon him the prestigious Padma Shri award, the highest civilian honor. This accolade is a testament to the profound impact of his work and the importance of his contributions to the field of diabetes care.

Additional Information

Disclosures

Conflicts of interest: In compliance with the ICMJE uniform disclosure form, all authors declare the following:
Payment/services info: All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

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