Reflections from the district residency programme posting in Gadchiroli, Maharashtra

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ABSTRACT

Working at a rural hospital in India under the National Medical Commission's District Residency Programme provided a firsthand encounter with the unique challenges and triumphs of healthcare in resource-limited settings. The experience in Gadchiroli, Maharashtra, highlighted the profound impact of poverty, illiteracy, and geographical barriers on healthcare delivery. Despite facing shortages in equipment and resources, the dedication of healthcare professionals proved the importance of knowledge and adaptability in patient care. The prevalence of diseases such as leprosy and the provision of care to marginalized populations, including inmates and orphaned children, highlighted the critical role of healthcare in addressing societal needs beyond medical treatment. Collaborative efforts with local healthcare providers emphasized the importance of community-driven interventions and culturally sensitive approaches that encompass not just physical health, but also mental, emotional, social, and spiritual dimensions in order to promote holistic well-being. This transformative experience emphasizes the need for flexible, inclusive healthcare solutions to address disparities in resource-constrained settings and establishes the pivotal role of accessible healthcare in improving lives.

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INTRODUCTION

Working at a rural hospital in India was a transformative experience, exposing me to the unique challenges and triumphs of healthcare in resource-limited settings. We were fortunate to gain this experience as a part of the National Medical Commission's latest reform in 'Post-Graduate Medical Education Regulations, 2023' dated 29th December 2023, through its ambitious initiative called the 'District Residency Programme' (DRP).[1,2] Adapting a 'learning while serving' model, NMC mandated a 3-month training of postgraduate medical students, between the 3rd and 5th semester of training, at a rural government hospital.

During the third semester of my residency in Dermatology, We were posted at a government hospital in Gadchiroli, a remote and neglected city in eastern Maharashtra. Gadchiroli district located on the eastern edge of Maharashtra, shares borders with Chhattisgarh to the east and Telangana to the south. It stands as one of India's most impoverished and underdeveloped districts. Despite progress in other parts of Maharashtra and the country, Gadchiroli, with a population of nearly one million, predominantly tribal, lags behind in multiple aspects of development and thus remains more backward compared to other regions due to a combination of socio-economic, infrastructural, and health-related challenges. It is characterized by high levels of poverty, with a large portion of the population living below the poverty line. The local economy is primarily agrarian and lacks in modern agricultural techniques and infrastructure. Also, the minimal industrial presence, leads to a lack of employment opportunities beyond agriculture. The literacy rate is lower than the state and national averages. Furthermore, the region is handicapped by a plethora of diseases such as malnutrition, malaria, sickle cell anaemia, childhood mortality, tuberculosis, leprosy, and snake bites. Compounding the issue is the remarkably low physician-to-population ratio, coupled with a fractured health system. The doctor-to-population ratio in Gadchiroli district is around 1:5000 as opposed to 1:1300 for the rest of India.[3–5] The reluctance of doctors and healthcare personnel to work in the district further exacerbates these challenges. Additionally, historical factors, including tribal populations and Maoist insurgency issues, have contributed to the neglect of Gadchiroli.

During our three-month tenure at the government-operated hospital in this area, we had the chance to closely observe both the deficiencies and strengths within their healthcare sector. Watching their doctors successfully manage life-threatening diseases with minimal drugs, equipments and techniques from their armamentarium, reinforced my appreciation for the basic principles of medicine. In the low-resource setting of Gadchiroli, patients' well-being relied heavily on the steadfast dedication and commitment of doctors to their treatment. We learnt that while advanced equipment is valuable, it is the knowledge and skills of healthcare professionals that form the foundation of effective patient care.

One sweltering afternoon, a middle-aged woman, was brought into the clinic by her anxious family. Her skin was a devastating sight: large, painful blisters covered much of her body, and areas of her skin were peeling away, leaving raw, exposed wounds. We quickly recognized the signs of pemphigus vulgaris, a rare but severe autoimmune disease that causes blistering and skin failure. Civil Hospital, Gadchiroli was a modest set-up, equipped with basic medical supplies and staffed by a small yet dedicated team of healthcare workers. We knew the situation was critical. In a tertiary hospital like the one where we were

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doing our Dermatology residency, such a patient would be admitted to an intensive care unit and treated with intravenous immunoglobulin, corticosteroids and potentially even biologics like Rituximab. However, in Gadchiroli, such treatments were unavailable. Undeterred, we sprang into action with the resources at hand. We isolated the patient to the cleanest area of the hospital to minimize the risk of infection and instructed everyone to maintain strict hygiene. We initiated treatment using the limited supply of injectable corticosteroids, essential for reducing the immune system's attack on the patient's skin. We also contacted our colleagues in a nearby city requesting them to send additional drugs, though it would take a couple of days for them to arrive. Instead of waiting for the commercial paraffin gauze dressings to become available, we relied on the traditional method of using autoclaved banana leaves smeared with liquid paraffin to prevent irritation from bed linen or clothing and to promote healing. We received immense support from the local community who prepared nutritious meals to support her weakened body and kept her hydrated with coconut water and homemade electrolyte solutions. After a few tense days, the additional immunosuppressive medications—cyclophosphamide—arrived and we were able to increase the dosage of corticosteroids and start higher antibiotics to control infections. Gradually, the new blisters began to subside, and the raw areas started to heal. She became a remarkable example of resilience and the power of community in managing severe medical conditions with limited resources. Unwavering commitment of doctors and the villagers' collective effort reinforced the vital lesson we had learnt there: even in the most resource-constrained settings, compassion, ingenuity, and teamwork can transform desperate situations and save lives.

During the 3 months of our posting, as Dermatology residents, we were required to attend to patients with skin issues in the outpatient department. Civil Hospital, Gadchiroli, being the sole facility with a certified dermatologist, experienced a major influx of patients with skin ailments on a daily basis. The city had various unqualified practitioners and doctors from alternative medicine systems such as Ayurveda, Unani, and Homeopathy who often practiced dermatology and cosmetology without supervision. Their unsanctioned use of steroids and immunosuppressants frequently worsened patients' conditions, leading them to ultimately seek treatment at the Civil Hospital. Our typical day at the clinic entailed examining around 100–130 patients in the OPD per day, commonly encountering patients with scabies, fungal infections, leprosy, and sexually transmissible diseases. Additionally, patients from villages in the neighbouring Chandrapur district also often sought treatment at the District General Hospital in Gadchiroli. Unfortunately, due to a lack of health awareness and neglect, even common conditions were often seen in advanced stages of the disease requiring hospital admission and in-house care (Fig. 1, 2).

Another poignant memory of our short tenure in Gadchiroli was of a young local boy who was a previously diagnosed case of Degos disease (malignant atrophic papulosis) seeking treatment from a tertiary hospital in Nagpur. He used to follow up locally once a month. He once showed up looking extremely pale and weak. We ran some tests and were alarmed to discover severe pancytopenia with a dangerously low haemoglobin of 4 g/dl. Upon further inquiry, we learned that the boy had been self-administering a higher than recommended dose of azathioprine tablets without supervision, leading to complications due to the drug's myelosuppressive side-effects.

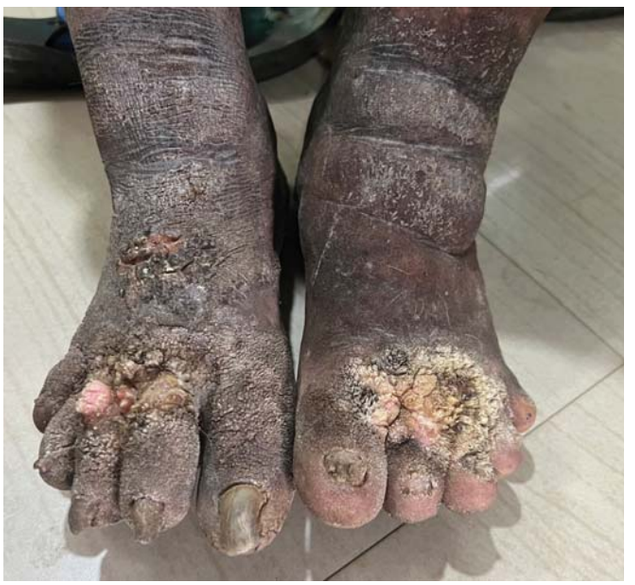

FIG 1. Elephantiasis Nostras Verrucosa Cutis with hyperkeratotic, verrucous, papillomatous growths on dorsum of bilateral feet with cobblestone appearance

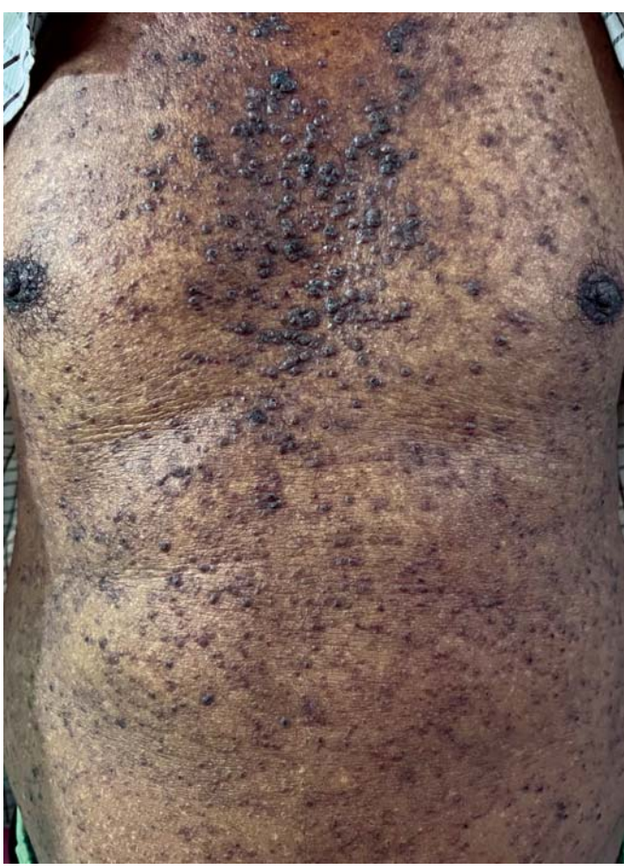

FIG 2. Darier disease with multiple, greasy, brown, hyperkeratotic warty papules over trunk.

We urgently ordered a blood transfusion, only to realise that the hospital was facing a critical shortage of the required blood group. With the boy's condition rapidly deteriorating, we

quickly arranged for his transfer to a tertiary centre overnight, with little hope of seeing him again in our clinic. However, to our astonishment, 3 weeks later, a familiar face returned to our OPD. Against all odds, our patient had survived this life-threatening ordeal and had come back to express his gratitude for our care and prompt action during the critical episode. His words of appreciation continue to resonate with us, serving as a constant reminder of the importance of going above and beyond for our patients every day.

India achieved the milestone of eliminating leprosy as a public health concern (prevalence<1/10 000) on 1 January 2006, at the national level. However, the burden of leprosy remains higher in the tribal district of Gadchiroli, with a prevalence of 4.5/10 000. Both Gadchiroli and Chandrapur districts are endemic for leprosy, with an annual new case detection rate (ANCDR) of 50/100 000, highlighting the necessity for a targeted approach to early leprosy identification in these regions.[6] Civil Hospital, Gadchiroli runs a dedicated outpatient clinic for patients with leprosy every Tuesday. During the 3-month rotation at the hospital, I encountered numerous patients with leprosy, including the rare histoid variant (Fig. 3). Some of them were complicated by concurrent HIV and tuberculosis infections. The gratification of diagnosing leprosy within the community and initiating treatment to make it non-infectious and prevent the debilitating complications of the illness is unparalleled for any dermatologist. We were also involved in dissemination of information and awareness about the disease to help curb the stigma that was prevalent in the rural population of Gadchiroli.

We also provided care for children from a nearby orphanage, who frequently arrived with severe secondarily infected scabies (Fig. 4), tinea capitis and impetigo. The joy of alleviating these young patients from their sufferings was unmatched. Among them was a quiet 6-year-old girl who had lost her parents to a tragic accident. She came to us with extensive scabies and secondary impetiginisation. She had also been struggling with severe anxiety and frequent illnesses, exacerbated by the lack of a stable home environment. We went beyond treating her physical ailments and created a nurturing environment, offering her counselling, emotional support, and educational activities that helped her build confidence and resilience. Slowly, the little girl started to smile again, her health began improving alongside her sense of security.

Every fourth Saturday, we made visits to the central jail in Gadchiroli. This facility is an open jail that accommodates around 30 inmates from distant prisons, some awaiting remission of their sentences, while others nearing the end of their terms. We provided medical care for inmates with conditions such as psoriasis, photodermatoses and skin infections. For those requiring more extensive treatment, we referred them to the civil hospital. We distinctly remember a middle-aged man serving a lengthy sentence for a crime he had committed out of desperation. When he visited us, he had extensive erythrodermic psoriasis which had worsened due to inadequate medical care in the prison. Seeing beyond his criminal record, we treated him with the same respect and care as we would give to any patient. We not only provided him with the medical attention that he desperately needed, but also tried to understand the socioeconomic struggles that had led him towards crime. Through our support, the patient began to feel a sense of dignity and hope for the first time in years. We would look forward to these jail visits as they offered insight into the often-overlooked lives of prisoners in our country. Through these visits, we gained an understanding and appreciation for the educational initiatives, vocational training, welfare programmes, and rehabilitation facilities provided by the jail administration to ensure the inmates' right to education and health.

These stories are just a few among many. The hospital thus became a sanctuary where marginalized individuals received comprehensive care that addressed both their medical and social needs. We understood that healing was multifaceted and tried to invite local organizations to provide inmates with

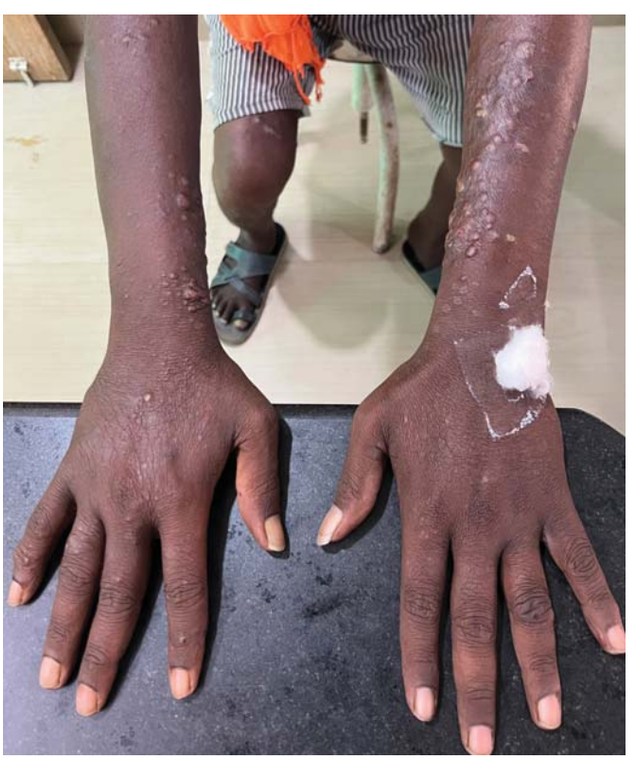

FIG 3. Histoid leprosy showing multiple, bilaterally symmetrical, non-tender, skin-coloured, shiny, dome-shaped, papulonodules over both arms

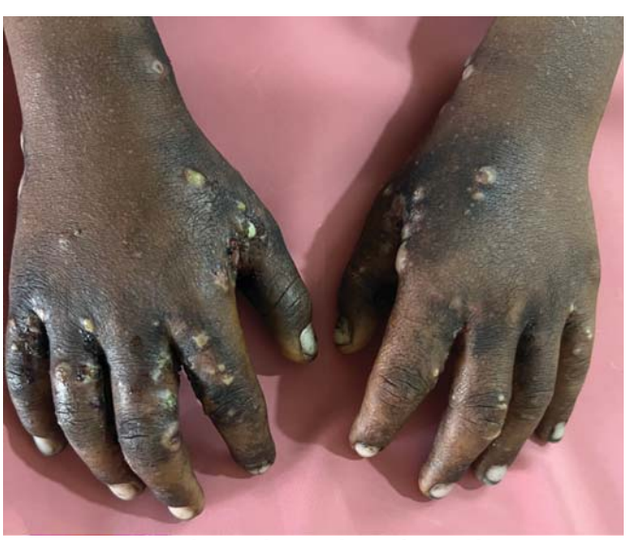

FIG 4. Extensive scabies with secondary infection showing pustules, erosions and excoriations in both hands

vocational training and job placement assistance, giving them a second chance at life once released. For the orphaned children, we collaborated with social workers to find loving foster homes and ensure their continued well-being.

Navigating the rural healthcare landscape for 3 months unveiled the stark realities of awareness lacuna and the prevalence of preventable diseases. Traditions and superstitions were deeply ingrained in daily lives of the people of Gadchiroli. The villagers believed in the power of the local healer, or 'Vaidya', whose herbal remedies and rituals had been passed down through generations. While these practices held cultural importance, they often clashed with modern medical advice, leading to health conditions that could have been prevented or treated more effectively. One of the most pressing health issues where the reluctance to seek medical help had resulted in numerous complications was chickenpox. The villagers believed that chickenpox was a curse from the gods, a punishment for past misdeeds and seeking medical help would anger the deities further. Instead, they placed their trust in the 'Ojha', who performed rituals and prescribed herbal treatments to appease the gods and alleviate the symptoms.

Working at the hospital we understood that imposing medical knowledge without respect for local customs would be futile, thus we sought to collaborate with local healthcare providers, including the Vaidya, to promote holistic well-being. We learnt about the local traditions from the elders of the village and the Vaidya by showing genuine respect for their knowledge and experience. This helped us build a foundation of trust and mutual respect. As more villagers saw the positive outcomes of this collaboration, the resistance to medical care began to diminish. We also organized health camps and educational sessions to promote importance of hygiene and vaccination to emphasize that respecting traditions while embracing medical advancements could lead to a healthier community.

Another memorable story is of the villagers of Kurhadi, where existed a long-standing stigma against individuals with vitiligo. Those affected by it were often marginalized, regarded with suspicion, and sometimes even ostracized from community activities and social gatherings thus disrupting community life. People were avoiding social gatherings, and there was a growing sense of fear associated with the condition. One such story is that of a girl who was diagnosed with vitiligo at a young age. Despite her bright personality and kind heart, she had to face constant ridicule and exclusion. When her family finally brought her to us in the hope of a cure, we immediately recognized that addressing this problem required understanding the intricate connection between health and community life. We started by conducting a series of meetings with the village elders, healers, and affected families to gather insights. We learned that the villagers believed the condition was a curse brought on by disturbing the spirits of the forest, and this belief was preventing many from seeking medical treatment. We explained that vitiligo was a medical condition caused by the loss of melanin in the skin, not a contagious disease or a curse. We emphasized that it had no impact on a person's health or worth and that those affected should be treated with kindness and respect. The results were transformative. The more people learned about vitiligo, the more they realized the irrationality of their previous beliefs. Children who once teased the young girl now played with her, and adults who avoided her began to engage in friendly conversations. The village gradually transformed into a place of acceptance and understanding. The long-standing stigma against vitiligo started to dissolve, replaced by a sense of community and shared humanity. This story became a symbol of hope for the village, showing that health and community spirit were deeply intertwined.

Witnessing firsthand the impact of socio-economic factors on health outcomes made us aware of the need for holistic interventions, encompassing education and community engagement. Collaborating with local healthcare professionals not only enhanced our clinical skills but also fostered a deeper understanding of the cultural nuances influencing health-seeking behaviour. The hospital's role as a community hub became evident as it addressed not just medical needs but also served as a focal point for social interaction and support. The interconnectedness of health and community life highlighted the importance of a comprehensive healthcare approach that extends beyond the clinic walls.

In conclusion, our time in a rural hospital in India was a profound journey that transcended the clinical realm. It illuminated the interconnectedness of healthcare, community, and culture, emphasizing the need for flexible, community-driven approaches. This experience has left an indelible mark on our understanding of healthcare in community settings with limited resources, inspiring a commitment to addressing health disparities and promoting inclusivity in medical practice. The dedication of the medical staff and their ability to make a meaningful impact on the community left a lasting impression, reinforcing the importance of accessible healthcare in improving lives.

We recall feeling very distressed when we had first learned that we would be required to spend three months of the District Residency Posting at Civil Hospital, Gadchiroli. However, by the end of my tenure, we left feeling extremely grateful for the chance to learn from the robust and skilled doctors there and for the privilege of serving one of the most neglected populations in our country.

Conflicts of interest. None declared

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