



A Case Report Of Cutaneous Lupus Vulgaris

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Abstract:

Cutaneous lupus vulgaris (CLV) is an uncommon type of tuberculosis that causes skin sores that last for a long time and get worse over time. **A 14-year-old boy lacking underlying disease presented with painful nodular swelling in his right thigh when he was 5 years old.** Improving patient outcomes and preventing complications by early detection and treatment of CLV is the goal of this initiative, which aims to increase healthcare providers' knowledge of the disease. The patient informed of a painful, slowly growing lesion on her face that had persisted for six months. During the examination, a clearly visible plaque with reddening, indentations, and crusting around the center has been noted. Additional tests have been initiated if a medical diagnosis of lupus vulgaris developed. Molecular diagnostics, tuberculin skin testing, and skin biopsies are all part of the diagnosis process. The results of the histopathological analysis are indicative of tuberculosis, showing granulomatous inflammation with caseation necrosis. The diagnosis of CLV has been established by the detection of Mycobacterium tuberculosis DNA using polymerase chain reaction (PCR) analysis. An antitubercular treatment regimen including ethambutol, rifampicin, isoniazid, and pyrazinamide has been initiated. To reduce inflammation and enhance wound healing, systemic corticosteroids and topical antibacterial medicines have been employed as adjunctive therapies. After six months of treatment, the patient's lesion gradually disappeared, a clear sign of an effective result. In endemic areas or in individuals with a history of tuberculosis exposure, this case emphasizes the significance of evaluating CLV in the differential diagnosis of persistent skin lesions. Comprehensive patient care for CLV requires a multidisciplinary approach that includes dermatologists, infectious disease specialists, and pulmonologists. Finally, the clinical appearance, diagnosis, and treatment of CLV are all illuminated by this case report. It highlights the need of identifying and treating this rare yet serious condition early on to improve patient outcomes as well as prevent consequences.

Keywords: Cutaneous Lupus Vulgaris (CLV), Polymerase Chain Reaction, Mycobacterium Tuberculosis.

1. Overview:

Cutaneous lupus vulgaris (CLV) is a chronic, progressive, paucibacillary kind of cutaneous the disease that affects people with moderate to high immunity. Developed and poor nations worldwide face the formidable health challenge of extrapulmonary the infection. Probably 0.1–2% of the overall skin illnesses seen in medical centres across the nation include cutaneous tuberculosis cases. That can be devastating and disfiguring, and getting a diagnosis and treatment done quickly is crucial [1, 2]. CLV is the most prevalent kind of cutaneous the disease in adults. Initialization through re-infection, lymphatic or hematogenous dissemination, and through direct spread in patients with moderate immunity and high tuberculin sensitivity [3]. Lupus vulgaris is a severe kind of cutaneous the disease that can continue for decade is ignored untreated. Most usually afflicted areas are the head and neck. While less usually, arms and legs, and occasionally, the trunk and scalp are implicated [4]. The diagnosis of cutaneous the infection is challenging, especially due to the disease's paucibacillary character and likeness with various cutaneous illnesses. The evolution of knowledge of tuberculosis' physiopathology allowed for a better understanding of the immunological factors involved in the disease process, nevertheless the development of new laboratory tests and the establishment of a histological classification that reflects the host's ability to contain the infectious agent [5,6]. The skin, bones, and blood vessels are the entire vulnerable to the inflammation that is caused by lupus, which is accompanied with a wide range of symptoms that can involve anything from a rash on the skin to neurological issues [7]. The painful cutaneous tuberculosis skin lesions associated with lupus vulgaris exhibit a nodular appearance and tend to occur on the face, particularly in the areas around the nose, eyelids, lips, cheeks, ears, and neck [8]. Systemic lupus erythematosus is the most frequent form of disease. Lupus is an autoimmune disease in that the immune system attacks their healthy cells, resulting in extensive inflammation and tissue destruction in the afflicted organs. Cortisol can damage the cartilage, skin, brain, lungs, kidneys, and blood vessels. [9]. Mycobacterium tuberculosis is recognized using a standard culture approach, but also by a newly devised technology that has been intended to identify mycobacterial DNA in formalin-fixed, paraffin-embedded tissue using Polymerase Chain Reaction (PCR). [10]. Lupus vulgaris and scrofuloderma can be destructive, leaving disfiguring scars. Lupus vulgaris can be worsened through the development of squamous cell carcinoma and other skin malignancies [11]. A positive test for the presence of these antibodies, that are generated in the immune system, suggests that system is generated. A great deal of patients that acquire a positive antinuclear antibody test perform rather than have lupus [12]. Subacute lupus often manifests with a red, raised, scaly rash on sun-exposed parts of the body. That produces circular skin lesions and lesions that resemble psoriasis on sun-exposed skin. Discoid lupus manifests as a red to purple scaly rash on the scalp, cheeks, ears, and other sun-exposed regions. [13,14].

Objectives:

- To assist healthcare providers, recognize and differentiate cutaneous lupus vulgaris (CLV) early on by clarifying the typical clinical presentation of the condition, including the appearance and development of skin lesions.

- The purpose of this diagnostic approach clarification is to describe the procedures and instruments used to confirm CLV, including skin biopsy specimens, tuberculin skin tests, and molecular diagnostic approaches, while emphasizing their advantages and disadvantages in real-world clinical cases.
- To illustrating the management strategy, the following treatment modalities are used to manage chronic lymphocytic leukemia (CLV): antitubercular therapy (ATT), adjunctive topical agents, and systemic corticosteroids. The significance of prompt initiation and comprehensive care in achieving positive patient outcomes is reinforced.
- Prioritizing Complication Prevention: Focusing emphasis to the need of identifying and treating CLV early on to improve long-term prognosis and prevent complications, we have called on healthcare providers to be more attentive and informed.

The rest of the paper is organized into portions: section 2 discusses the existing methods operate, section 3 proposes CLV-PCR technique, section 4 analyses the experimental results, and section 5 concludes with the research's impact.

2. Literature review:

Luís Santiago et al. (2019) detailed the specific vesiculobullous skin lesions in lupus erythematosus are uncommon and can be distinguished from Toxic Epidermal Necrosis (TEN), that includes dermatoses and the vesiculobullous diseases [15]. People describe a patient with classic subacute cutaneous lupus erythematosus that developed to huge sheet-like regions of epidermal detachment that resembled TEN. Differentiating a bullous eruption in the setting of pre-existing remains challenging, necessitating a careful examination of clinical and histopathologic data. Pathological observations of interface dermatitis with a lymphocytic infiltration, positive direct immunofluorescence, resolution with immunomodulation, and the absence of a culprit medication are currently reported in TEN-like cutaneous lupus erythematosus.

Hanof Ahmed et al. (2023) discussed the Discoid Lupus Erythematosus (DLE) is a chronic kind of cutaneous lupus erythematosus that appears on sun-exposed regions in a variety of forms, making diagnosis difficult [16]. Clinical suspicion and timely treatment are required to prevent irreversible deformity, progression to systemic involvement, and a low quality of life. People provide a case of delayed DLE diagnosis in that a patient came with a new skin lesion that resembled the early stages of mycosis fungoides, prompting additional research. However, the unique clinical presentation resulted in widespread DLE and resistant disease management, causing scarring and facial deformity.

Bin Rubaian et al. (2022) introduced the skin punch biopsy was performed, and lupus vulgaris was verified the lesion reacted well to Anti-Tubercular Therapy (ATT), however healed with atrophic scarring [17]. The head and neck are the most usually afflicted areas, followed with the arms and legs. The infection was misdiagnosed as leishmaniasis due to the patient resided in an endemic location, and the treatment ensued ineffective. Despite cutaneous the disease is uncommon, doctors can be aware of the need of evaluating disease in the differential, due to mistake or delayed identification of this disease can result in extended morbidity.

Chiara Sabbadini et al. (2021) illustrated the Patients enduring cancer treatment tend to be immune to the occurrence of transient acantholytic dermatosis (TAD) [18]. The patient is increasingly undergoing combination treatment for advanced lung adenocarcinoma with pembrolizumab and carboplatin-pemetrexed; however, there face a history of temporary acantholytic dermatosis after radiotherapy for prostate cancer. To be aware of TAD and associated relationships is crucial, especially in cancer patients, like the instance indicates. The patient in the case analysis exhibited ulcerated lymphadenopathy on the created half of the neck and a violaceous plaque at the manubrium of the sternum. The identification of the disease is difficult and requires the integration of clinical observations with diagnostic tests.

Camila S. C. da Silveira et al. (2023) prepared a autoimmune illness that has several clinical manifestations is referred to as cutaneous lupus erythematosus (CLE) [19]. The chronic variant is most often diagnosed by looking for discoid rashes, however it may also manifest with less frequent morphological features. The aetiology and therapy of comedie lupus are currently unclear, and the condition is uncommon and often misdiagnosed. Comedian lesions, that tend to appear on the face, can rule out less serious but equally harmless diagnoses like acne vulgaris. The significance of clinical practice and histology in confirming diagnoses, such as Favre-Racouchot syndrome and syringas, is emphasized.

Vale, E. C. S. D., et al. (2020) introduced Many of the various clinical symptoms of systemic lupus erythematosus, cutaneous lupus erythematosus can occur as an entirely cutaneous illness or as one of many other forms of this autoimmune disorder [20]. Clinical manifestations, together with histological and laboratory results, are often used to categorize it into acute, subacute, intermittent, chronic, and bullous subtypes. Several non-specific skin symptoms, often linked to disease activity, can be seen in patients with systemic lupus erythematosus. Lupus erythematosus skin lesions have a complex pathophysiology that involves environmental, genetic, and immune components. To help to bring internists and experts from many fields up to speed on the key enteropathogenic, clinical, diagnostic, and therapeutic features of cutaneous lupus erythematosus, experts can be discussing these issues.

Zhen-Zhen Wang et al. (2022) discussed lupus vulgaris, a kind of cutaneous tuberculosis (CTB) that lacks bacteria on its surface, is responsible for the majority of tuberculosis cases [21]. Negative results from interferon-gamma release assays and lymph node and lesion biopsies led to the first diagnosis of sarcoidosis. Lesions worsened over time despite the patient's treatment with immunosuppressive and long-term oral steroids. Finally, a diagnosis of lupus vulgaris was made by combining mycobacterial culture with molecular detection. Standard antituberculosis treatment for a period of time cleared up the skin lesions.

A few disadvantages of a report on a case of cutaneous lupus luvarids in the modern day. Potential side effects include scar atrophy and tissue damage. In most cases, immunosuppression or active tuberculosis can be prevalent if disseminated lesions manifest. Lupus vulgaris can appear in a wide variety of ways, making a definitive diagnosis difficult. TEN can solve the disadvantages of DLE, ATT and TAD if compared to the proposed approach CLV-PCR.

3. Proposed method:

A red, raised, scaly rash on parts of the body that are exposed to the light is the most common symptom of subacute lupus. Circular skin lesions or lesions that resemble psoriasis on sun-exposed skin are common symptoms. Lupus vulgaris causes a scaly rash that can range in colour from red to purple and appears on sun-exposed regions like the scalp, cheeks, and ears. Epithelioid histiocytes, multinucleate large cells in the superficial epidermis, and abundant peripheral lymphocytes are the most noticeable histopathologic features. The most notable characteristic is the creation of typical tubercles, which may or may not be surrounded by caseation. Activation of a dormant cutaneous focus owing to past silent bacteraemia has been proposed as a possible explanation in cases when the underlying focus is not visible. Leprosy, sarcoidosis, lymphotomy, Spitz nevus, and lupus erythematosus are early-stage differential diagnoses to consider; syphilis must be ruled out in older cases. Culture and histopathologic results distinguish lupus vulgaris from deep mycoses, which are similar to crusted and vegetative mycoses.



Figure 1a) Pre-treatment of cutaneous lupus vulgaris



Figure 1 b) Post treatment of cutaneous lupus vulgaris

Figure 1 (a, b) shown in the majority of cutaneous cases of tuberculosis are caused with lupus vulgaris. A condition that can prove debilitating and even fatal assuming untreated for long, requires quick medical attention. In several years, the non-healing lesion transformed into a verrucous lesion in the shape of a cauliflower; the patient possessed discomfort and itching as a result of that condition. Within receiving treatment, the lesion began to spread to the right

foot and right leg across the medial malleolus for several years. The patient had previously complained of a cauliflower-shaped verrucous lesion on the patient's right thigh and leg, and patients went to the outpatient clinic for chest medicine. Different sized and shaped flat plaques on a non-erythematous foundation with inequitable borders. Similar to psoriasis, thick silvery scales cover the sores. Accompanied by regions of necrosis leaking from the lesion and the absence of notable lymphadenopathy. The results of the neurological, cardiovascular, pulmonary, and abdominal exams came back acceptable.



Lupus Vulgaris



Skin infective focus of cutaneous lupus

Figure 2 Sample diagram of cutaneous lupus vulgaris

Figure 2 shown in there are a number of possible clinical presentations of cutaneous the infection. A variety of mechanisms, including exogenous injection, contiguous spread from an adjacent infection site, and hematogenous spread from a distant infection site, may lead to skin involvement. The skin can get infected due to external inoculation, infectious spread from an under-the-skin location or hemogenic spread from a faraway location or as part of a more widespread hemogenic dissemination. Soft tissue abscesses or nodules may be subacute presentations of cutaneous hematogenous spread of the infection. If an abscess forms near a previously damaged area, that can mean that blood-borne organisms have settled into that area. Lupus vulgaris, a kind of cutaneous involvement seen in TB, is among the most prevalent manifestations in those who have developed a prior susceptibility to *Mycobacterium tuberculosis*. The characteristics pointed to a long-term inflammatory response characterized by granulomas. There proved to be possible to detect acid-fast bacilli or characteristic tuberculous follicles. Fungi, bacteria, and acid-fast bacilli were never detected in the culture. Upon completion of therapy, the plaque was found to have resolved completely, with very little scarring remaining. Plaque, ulcerative, vegetative, papular-nodular, and tumor-like morphological patterns have been identified. The face, ears, and neck are often affected by ulcerative and mutilating types, which are more likely to cause scarring and deep tissue involvement. Because of its paucibacillary origin and very diverse clinical presentation, definitive diagnosis is extremely challenging and may cause under-recognition of the ailment, which in turn can delay treatment. Despite the challenges in diagnosis, it is critical to get the right and sufficient therapy to avoid the high risk of local damage or the formation of malignant skin tumors if left untreated.

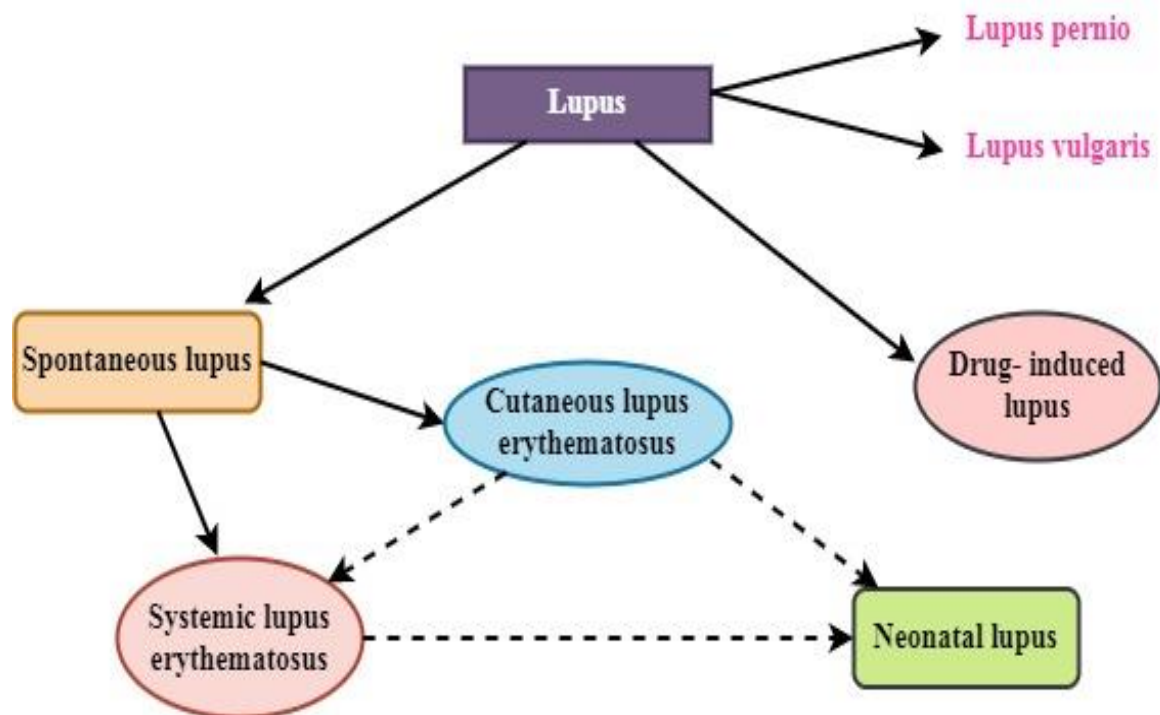


Figure 3 Classification of Cutaneous lupus erythematosus

Figure 3 shown in acute, subacute, and chronic cutaneous lupus erythematosus are all subtypes of cutaneous lupus erythematosus, that is a generic term for a group of skin illnesses. A chronic autoimmune disorder, systemic lupus erythematosus may impact many organs and tissues throughout the body. The autoimmune system, which typically aids in protecting the body from pathogens and diseases, launches an assault against healthy tissues, leading to lupus. The four types of chronic cutaneous lupus erythematosus include discoid, profundes, chilblain, and tumulus lupus. An autoimmune reaction, a condition where the body assaults its own tissues and organs, is the underlying cause of both systemic and cutaneous lupus. The immune system mistakenly attacks skin cells in cutaneous lupus, resulting in inflammation and the appearance of red, thick, and often scaly rashes and ulcers that may be itchy or burn. The immune system mistakenly attacks skin cells in cutaneous lupus, resulting in inflammation and the appearance of red, thick, and often scaly rashes and ulcers that may be itchy or burn. Unpredictable patterns of symptom onset and resolution are possible. Flares may last for months or even decades are never treated. Due to their anti-inflammatory characteristics, corticosteroid drugs help alleviate swelling, redness, burning, itching, and pain. Reduce the size and level down any elevated lesions using corticosteroids. A course of therapy that includes topical corticosteroids is common. Rather, it's a chronic condition that may be managed with a combination of medicine and behavioral modifications, like reducing sun exposure by wearing protective clothes and using sunscreen. A butterfly rash across the nose and cheeks is the most common symptom of acute cutaneous lupus. A melanie rash is another term for this kind of rash. Though dermatitis can itch, this rash, which resembles a sunburn, seldom hurts. A skin rash on the legs or arms is another possible symptom.

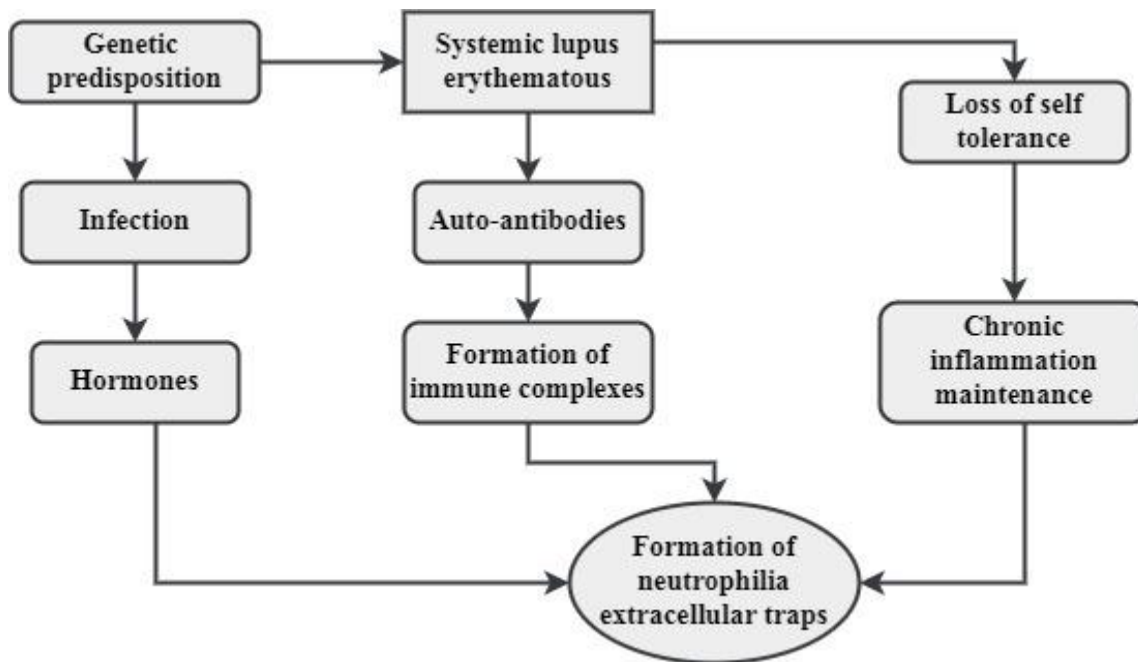


Figure 4 Effective in systemic lupus erythematosus

Figure 4 shown in lupus treatment revolves on hydroxychloroquine. Pulses of methylprednisolone followed by low to medium doses of prednisone easily manage flares that are mild to severe. In cases of severe illness and to preserve the use of corticosteroids, immunosuppressive medications may be used. Lupus is a chronic inflammatory disorder (IBD) for which there is now no medication that can help with the symptoms. Lupus flares and associated complications may be lessened or eliminated with treatment. Antimalarials and topical medicines are the first lines of defense against malaria. It may be worth considering adding systemic glucocorticoids; the first dosage will depend on how severe the skin involvement is. When hydroxychloroquine or topical corticosteroids fail to alleviate symptoms related to the kidneys, methotrexate might be used for conditions including arthritis and rashes. The standardized mortality ratio in the overall systemic lupus erythematosus group varied between 1.9 and 4.6. Studies found that cardiovascular disease was the leading cause of mortality in 5-11% of individuals whose systemic lupus erythematosus had advanced. Fatigue, skin rashes, fevers, and joint discomfort or swelling are some of the symptoms that people with SLE can get. For certain people, the condition symptoms can flare up every so often, often years apart, and then remain away for a while, a phenomenon known as remission. The illness, in that the immune system targets healthy organs and tissues, undertakes, unfortunately, claim the lives of some patients. The autoimmune disorder lupus may cause damage to every organ in the body over time. Patients with suffer from autoimmune disorders have immune systems that mistake harmless foreign invaders for their own healthy cells, tissues, and organs. If their systemic lupus erythematosus is moderate under control, people can never impact any problems and the disease can leave minimal or no effect on the way activities. live. However, systemic lupus erythematosus is a more severe form of lupus that may develop into potentially fatal consequences for some individuals. As lupus symptoms can be misleading, the disease impacts immune systems differently in individuals, and the conventional treatments for the disease include significant side effects, lupus is challenging to diagnose and treat.

4. Experimental analysis:

Physical testing, cultures, histopathology, tuberculin skin tests, polymerase chain reactions, interferon-gamma release assays, and genotyping are all used to diagnose infections. The medications that are used include ethambutol, isoniazid, rifampicin, and pyrazinamide. Lesions in cutaneous lupus erythematosus often cleared up entirely within two to four weeks. Consequences were identical to that of etretinate. The results show that acitretin is an excellent medicine for treating cutaneous lupus erythematosus, and the rule is likewise quite well-tolerated. Although stress can be the sole cause of lupus, that can contribute to the beginning of the disease in people that are genetically susceptible. As lesions heal, people can detect a few scars or dark patches on the skin; nevertheless, the results are seldom uncomfortable and irritating. Damage to hair follicles caused by scalp scarring can result in to irreversible hair loss.

Dataset description: Subacute cutaneous lupus erythematosus individuals that were actively experiencing skin illness with treatment has lesional skin samples obtained from their bodies. 10 patients that were intending to have cosmetic surgery had their healthy skin samples collected. A couple 4 mm punch biopsies were obtained in each instance. One was subjected to rapid freezing in liquid nitrogen and subsequently isolated. The gene expression studies were conducted using the one-color Agilent 60-mer oligo microarray. The gene expression data analysis system and Agilent Feature Extraction Software were used to conduct statistical analyses. standardization of sample-to-control ratios is included in the gene list provided offered. To histological examination, the second biopsy was fixed in a 5% formalin solution for the duration.

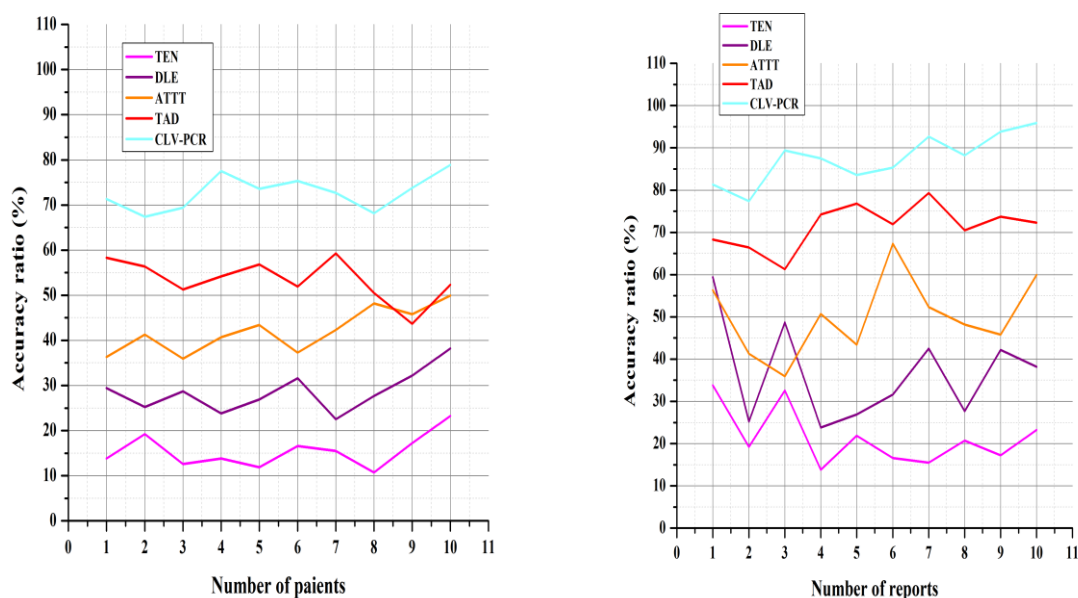


Figure 5 Accuracy of patients reports for cutaneous lupus vulgaris

Figure 5 shown in there are currently no diagnostic criteria for lupus, that is a disease that is both complicated and diverse. Patients can end up seeing many physicians and spending

months or even years trying to get an appropriate diagnosis as a consequence of this. Patients with lupus are subject to significant repercussions as a result of diagnostic delays and mistakes. Approximately 70–80 % of sun-exposed nonlesional skin specimens acquired from patients with systemic are positive for the CLV. Additionally, approximately 55 percent of PCR cases are positive for the CLV while sun-protected nonlesional skin is under examination. A positive CLV is often seen in the lesional skin of individuals with cutaneous skin disease. In the event that certain proteins are discovered in the blood, this provides the physician with information that can help in providing the patient with an accurate diagnosis. A further procedure that a dermatologist could conduct is called a skin biopsy, and it involves the removal of a tiny bit of skin. Due to the fact that the symptoms might differ from person to person and the fact that they can be similar to those of other disorders, there is a high probability of incorrect diagnosis. The astounding number of 46.5% of patients with lupus say that they were given the incorrect diagnosis. The findings of the tests indicate that lupus may be caused by other diseases or may even be seen in individuals who are otherwise healthy. It is possible for a test result to go from positive to negative in a single instance. There is a possibility that several labs can produce varying results from tests.

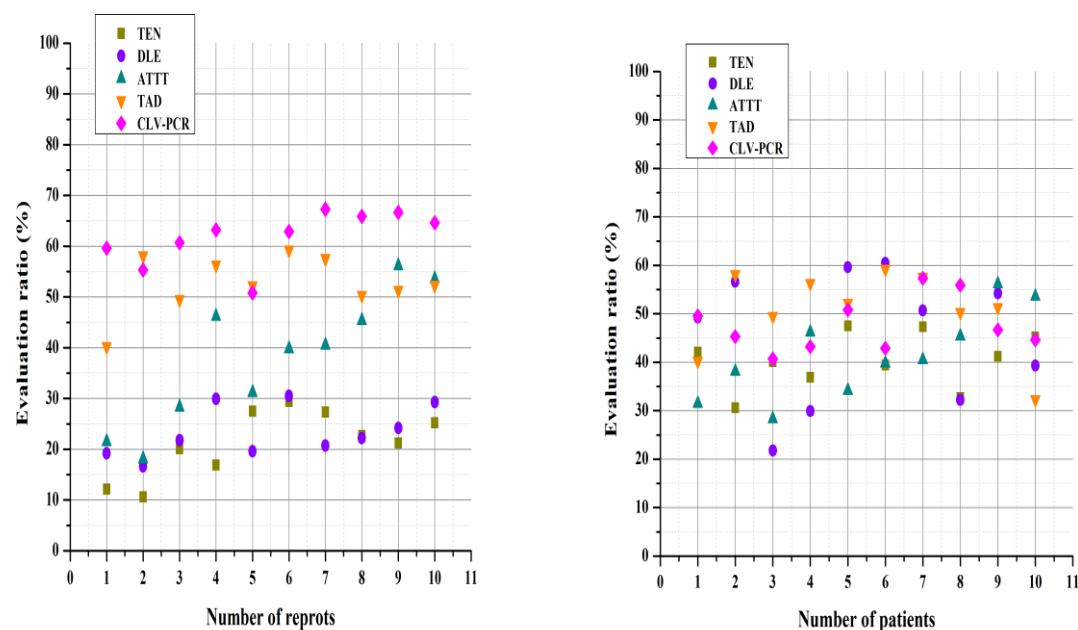


Figure 6 Evaluation of patient's condition for CLV-PCR

Figure 6 shown in a organism need to be cultured either from the site of infection or, in more serious instances, from blood in order to arrive at a definitive diagnosis. A culture of this bacteria, either from pus or a biopsy of the affected region, is cultured in a lab to confirm the diagnosis. A kind of vasculitis that often affects only the skin, known as cutaneous leukocytoclastic vasculitis, targets the tiny blood vessels there. Lupus vulgaris is characterized by a very long course of illness, during which the lesions gradually expand over the course of years—if not decades. In European nations, the most prevalent locations of infection are the head and neck. Involvement often occurs in the legs, buttocks, and thighs in India. Direct

testing, cultures, histopathology, tuberculin skin tests, polymerase chain reactions, interferon-gamma release assays, and genotyping are all used to diagnose infections. The medications that are used include ethambutol, isoniazid, rifampicin, and pyrazinamide. Either a positive result from direct immunofluorescence microscopy or serologic detection of autoantibodies against epithelial cell surface antigens, as well as histology and clinical presentation that are compatible with pemphigus, are necessary for the diagnosis. Direct injection of tubercle bacilli into the skin of an infected person that has established a good immunity causes tuberculosis verrucosa cutis. The therapy is similar to that of pulmonary tuberculosis; in the absence of drug resistance, it comprises a two-month course of isoniazid, rifampicin, pyrazinamide, and ethambutol, followed by a four-month course of isoniazid and rifampicin.

5. Conclusion:

The most of cases of cutaneous lupus vulgaris (CLV) occur in middle-aged people, and the condition often manifests as plaques that often affect the limbs. Both clinical signs and histological analysis contribute to the diagnosis. Scars left by scrofuloderma and lupus vulgaris may be unsightly and debilitating. Squamous cell carcinoma and other skin malignancies may progress in lupus vulgaris, making the condition more difficult to manage. Although lupus vulgaris can be cured entirely, irreversible abnormalities can result from the destruction of underlying bone and cartilage caused by a delay in diagnosis and therapy. On very rare occasions, sarcoma, basal cell carcinoma, or squamous cell carcinoma may develop. The PCR-based method has the potential to greatly simplify the diagnosis of cutaneous the disease due to the rapid turnaround time of the findings. Hence Inflammatory papules, verrucous plaques, suppurative nodules, chronic ulcers, and other lesions may be diagnosed by CLV-PCR for cutaneous the infection. In almost all new instances of tuberculosis, the disease can be cured with the right pharmacological therapy and careful supervision. Lupus vulgaris is characterized by a very long course of illness, during which the lesions gradually expand over the course of years—if possibly decades. The most typical areas impacted are the head and neck. Lupus patients that previously utilized various immunosuppressant medications were able to prolong symptom remission with the aid of the medicine obexelimab. Daratumumab is another novel medicine that aims to curb the immunological hyperactivity associated with lupus by targeting long-lived white blood cells. Eighty to ninety percent of lupus patients may anticipate a typical lifespan with proper therapy and regular monitoring. The fact is accurate that there is now no treatment or cure for lupus, and that the condition can result in death in some cases. **The swelling was surgically removed in a private clinic, however the lesion remained non-healing and became a cauliflower-shaped verrucous lesion that caused pain and itching. As analogous antibiotic treatment fails to alleviate persistent skin lesions and culture results reveal lacking growth, tuberculosis can be evaluated a possible diagnosis.** Though probably likely never be deadly for most individuals living with the condition currently.

Overview:

A comprehensive case report on cutaneous lupus vulgaris (CLV) is the desired framework of the proposed study. The clinical presentation, diagnostic method, management strategies, and possible consequences of CLV are going to be addressed in the study.

The report is going to start with a thorough description of a clinical case including a male patient with CLV is 14 years old. The patient's history, first symptoms, and the development of skin lesions over time will be detailed. The hallmarks of chronic lichen planus (CLV), including the presence of skin lesions that are chronic and progressively develop over time and have distinct morphological features, have been thoroughly documented.

Evaluation of Diagnostic Methods: After presenting the case, the report goes over the methods used to confirm the diagnosis of CLV. Skin biopsies, tuberculin skin evaluations, and molecular diagnostic methods like polymerase chain reaction (PCR) analysis are going to be covered in this section. In order to help with correct diagnosis and starting treatment on time, we can detail the benefits and drawbacks of each diagnostic method.

Management Methods: Various management options used to treat CLV will be explained in the paper. Antitubercular therapy (ATT) will be the backbone of treatment to eradicate the underlying Mycobacterium tuberculosis infection. It will consist of rifampicin, isoniazid, pyrazinamide, and ethambutol. Topical antimicrobials and systemic corticosteroids are two examples of adjuvant therapies that may be used for the management of inflammation and the promotion of wound healing.

Prognosis and Complication Prevention: highlighting the need of preventing difficulties in CLV concern is an essential part of the proposed effort. It is crucial to recognize CLV early and treat it appropriately to prevent serious morbidity, such as scarring and widespread tissue loss, which can result from untreated CLV. In addition to discussing the short- and long-term effects of CLV, the report will emphasize the significance of prompt action and thorough patient care in enhancing results.

The proposed work intends to improve healthcare providers' understanding of CLV and help improve patient outcomes and medical care for people with this common but significant clinical condition by providing a comprehensive case report including these important components.

Reference:

1. Behera, B., Jain, S., Mohapatra, L., Masatkar, V., Panda, S., Jain Jr, S., & Panda Sr, S. (2023). A clinico-histopathological study of lupus vulgaris at a tertiary care centre. *Cureus*, 15(7).
2. Cooper, E. E., Pisano, C. E., & Shapiro, S. C. (2021). Cutaneous manifestations of “lupus”: systemic lupus erythematosus and beyond. *International Journal of Rheumatology*, 2021, 1-19.
3. Garcia, L. C., Morato, I. B., Melo, R. F. Q. D., & Vale, E. C. S. D. (2023). Comedogenic lupus: a rare variant of chronic cutaneous lupus erythematosus-case series. *Anais Brasileiros de Dermatologia*, 98, 159-167.
4. Sitohang, I. B. S., Rheza, A. M., Sirait, S. P., Fitri, E. M., & Suseno, L. S. (2021). Acne Vulgaris Mimicking Cutaneous Lupus Erythematosus in an Adolescent: Report of a Rare Case. *Case Reports in Dermatology*, 13(1), 69-74.
5. Dybowska-Gołota, I., Owczarczyk-Saczonek, A., Krajewska-Włodarczyk, M., & Żuber, Z. (2020). Psoriasis and systemic lupus erythematosus in children—literature review based on case report. *Reumatologia/Rheumatology*, 58(1), 48-55.

6. Lu, Y., Wang, H., Zheng, H., & Li, X. (2018). Bilateral “turkey ear” as a cutaneous manifestation of lupus vulgaris. *Indian Journal of Dermatology, Venereology and Leprology*, 84, 687.
7. Herzum, A., Gasparini, G., Cozzani, E., Burlando, M., & Parodi, A. (2022). Atypical and rare forms of cutaneous lupus erythematosus: the importance of the diagnosis for the best management of patients. *Dermatology*, 238(2), 195-204.
8. Keshavamurthy, C., Fibeger, E., Virata, A., & Bansal, P. (2023). Successful treatment of bullous lupus with corticosteroids and belimumab: A case report. *Modern Rheumatology Case Reports*, 7(1), 52-56.
9. Xue, T., Lu, Z., Zhang, W., Wang, Z., Shi, Y., Jiang, H., & Wang, H. (2022). Facial Erythema Due to Lupus Vulgaris and Candida albicans Infections: A Case Report. *Clinical, Cosmetic and Investigational Dermatology*, 1397-1402.
10. Puspitasari, D., & Henrica, F. (2020). A Case of Lupus Vulgaris Diagnosed without Skin Biopsy. *Journal of Medicine and Health*, 2(5).
11. Dai, B., Bai, Y., Yu, H., Huang, Q., & Wang, L. (2023). Response of Psoriasis with Systemic Lupus Erythematosus to Secukinumab: A Case Report and Review of the Literature. *Clinical, Cosmetic and Investigational Dermatology*, 3589-3594.
12. Lu, Q., Long, H., Chow, S., Hidayat, S., Danarti, R., Listiawan, Y., ... & Lin, C. S. (2021). Guideline for the diagnosis, treatment and long-term management of cutaneous lupus erythematosus. *Journal of autoimmunity*, 123, 102707.
13. Vieira, M. L., Marques, E. R. M. C., Leda, Y. L. A., Noriega, L. F., Bet, D. L., & Pereira, G. A. A. M. (2018). Chronic cutaneous lupus erythematosus presenting as atypical acneiform and comedonal plaque: case report and literature review. *Lupus*, 27(5), 853-857.
14. Drosch, C., & Magro, C. (2019). A comedonal variant of chronic cutaneous lupus erythematosus: case report and literature review. *JAAD Case Reports*, 5(9), 801-805.
15. Santiago, L., Mascarenhas, R., Tellechea, Ó., & Gonçalo, M. (2019). Case report: Toxic epidermal necrolysis-like subacute cutaneous lupus erythematosus associated with lung carcinoma. *BMJ Case Reports*, 12(10).
16. Ahmed, H., Petkar, M., Wafi, O., & Abu Shaikha, S. (2023). Unusual case of adult-onset cutaneous lupus erythematosus mimicking early mycosis fungoides. *Oxford Medical Case Reports*, 2023(5), omad043.
17. Bin Rubaian, N. F., Alzamami, H. F., Alhosawi, G. A., & Almuhaish, L. A. (2022). Lupus vulgaris mimicking cutaneous leishmaniasis: A case report. *Our Dermatology Online/Nasza Dermatologia Online*, 13(1).
18. Sabbadini, C., Oberschmied, J., Tauber, M., & Nobile, C. (2021). A rare case of scrofuloderma along with lupus vulgaris. *Dermatology Reports*, 13(3).
19. da Silveira, C. S., Lemos, T. B., Curty, E. R., Sampaio, A. L., Alves, M. D. F. G., Antelo, D. A., ... & Azulay-Abulafia, L. (2023). Comedonic lupus, a rare variant of chronic cutaneous lupus erythematosus (CCLE): case series and literature review. *International Journal of Dermatology*, 62(7), 924-932.
20. Vale, E. C. S. D., & Garcia, L. C. (2023). Cutaneous lupus erythematosus: a review of etiopathogenic, clinical, diagnostic and therapeutic aspects. *Anais Brasileiros de Dermatologia*, 98, 355-372.

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21. Wang, Z. Z., & Wang, H. (2022). Giant Lupus Vulgaris with Negative T-SPOT. TB, a Case Report and Literature Review. *Clinical, Cosmetic and Investigational Dermatology*, 1119-1123.
22. **<https://datasetsearch.research.google.com/search?src=0&query=CUTANEOUS%20LUPUS%20&docid=L2cvMTFqY2tfZGtfMw%3D%3D>**