



A CASE REPORT ON HANSEN'S DISEASE

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ABSTRACT

Leprosy (Hansen's disease) is caused by mycobacterium leprae and has been known since ancient times. It is highly contagious, but its morbidity is low because a large portion of the population is naturally resistant to this disease. Leprosy generally affects skin and peripheral nerves. The disease mainly affects the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract and the eyes. Early diagnosis is very important. Its prevalence has decreased markedly since the introduction of MDT in the beginning of the 1980's. Antibiotics are used to treat nerve damage, anti-inflammatory drugs to control nerve pain and damage related to leprosy and may include steroids. Multidrug therapy is the best treatment for leprosy which includes medications such as rifampicin, dapsone, Clofazimine, Ofloxacin, Minocycline. The WHO recommends that the monthly doses of rifampin be administered under direct observation during visit. Monthly outpatient follow-up is recommended during therapy. Successful treatment can result in flattening and elimination of nodules, papules and improve nerve function.

INTRODUCTION

Hansen's disease also known as leprosy is a chronic infection caused by the acid-fast, rod shaped bacillus Mycobacterium leprae and is contagious, which means that it can be transmitted from person to person. Leprosy may be considered 2 connected diseases that primarily affect superficial tissues, especially the skin and peripheral nerves i.e., nerve, skin, eyes, and lining of the nose[1]. Leprosy occurs on a spectrum, in which the most severe form is called multibacillary or lepromatous, and the least severe form is called paucibacillary or tuberculoid. Occurrence of signs and symptoms intermediate between these forms are called borderline forms[2]. Symptoms include painless skin patch accompanied by loss of sensation but not itchiness, loss of sensation paresthesias where the affected peripheral nerves are disturbed, wasting and muscle weakness, foot drop or clawed hands, ulcerations on hand or feet, corneal ulceration. Multibacillary leprosy usually involves a large number of cutaneous lesions, including both surface damage and lumps under the skin[3]. Paucibacillary leprosy typically involves a small number of surface

lesions on skin. Leprosy was once a contagious and devastating disease, but now the treatment is very effective. However, if left untreated, the nerve damage can result in crippling of hands and feet, Paralysis, and blindness[4].

CASE STUDY

A 50yr old patient was brought to the hospital with chief complaints of fever (intermittent, low grade), body pains, swelling of both hands since 4 days. The patient had a past history of muscle pain, blurring of vision & pain in the eye and taking anti leprosy drugs. The patient had pin prick sensation decreased over distal aspect of both upper and lower limbs, leonine facies, Fissuring of feet, diffuse infiltration over ear lobes and face, reabsorption of digits of Lt hand, partial clawing of right hand. When the patient had this similar complaints in the past, he was prescribed with Prednisolone 25 mg, liquid paraffin and adult MB-MDT pack, Pantoprazole 40mg, cetirizine 10 mg.

Table 1. Laboratory Investigation:

Parameter	Observed Value	Normal Value
Complete blood count (CBC)Hemoglobin	6g/dl	12-14g/dl
Renal function testsSr. Creatinine	0.7mg/dl	0.8-1.6mg/dl
RBC	4.7million cells/ml	4.5-5.5millioncells/ml

Figure 1. Hand with hansen's symptoms



Figure 2. Webbed foot toes



DISCUSSION:

The patient had fever (Intermittent, low grade), body pains, swelling of both hands since 4 days. Acid fast bacilli were seen. By the presence of patches of skin with decreased sensation and appearance of skin lesions, fissuring on the soles of the feet, the patient was diagnosed with Hansen's disease. Laboratory diagnostic methods include Slit skin smear test, Skin biopsy, PCR Test were performed which revealed the patient is diagnosed with hansen's disease. According to world health organization (WHO) guidelines the prescription given was injection dexamethasone 2mL is a corticosteroid to treat nerve damage, use of other multidrug therapies include Rifampicin 600mg, dapsone 100mg, ofloxacin 400mg, minocycline 100mg are used which are the most bactericidal drugs used to treat leprosy.

The patient was was counselled with life sstyle modifications such as maintaining hygenic conditions,

preventing disability, looking of weak and numb area, inspection and cleaning of infected areas, wearing appropriate foot wear, medication adherence is needed, consume vitamin rich containg foods, avoid stress by doing meditation/exercises.

CONCLUSION:

Early diagnosis and treatment with multidrug therapy is the most effective way of preventing disabilities from leprosy as well as preventing further transmission of disease. The WHO recommends that the monthly doses of rifampin be administered under direct observation during visit. Monthly outpatient follow-up is recommended during therapy. Successful treatment can result in flattening and elimination of nodules, papules and improve nerve function.

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