

Original article:

A clinical study on chronic leg ulcers due to diabetes mellitus

¹Dr.T.Uma Maheswara Rao, ²Dr. R.Suryanarayana Raju , ³Dr. G.Vijaya Kumar, ⁴Dr.C.Ratna Kumar ,
⁵Dr .G.V.Benerji

¹Associate professor of surgery, KIMS & RF, AMALAPURAM, E.G.Dt., Andhra Pradesh , India

²Associate Professor of Pharmacology , KIMS & RF, AMALAPURAM, E.G.Dt., Andhra Pradesh , India

³Assistant Professor of Biochemistry , Rangaraya Medical Collage, Kakinada E.G., Andhra Pradesh , India

⁴Associate Professor of Biochemistry , GEMS ,srikakulam , Andhra Pradesh , India

⁵Professor of Biochemistry , KIMS & RF, AMALAPURAM, E.G.Dt., Andhra Pradesh , India

Corresponding author: Dr.T.Uma Maheswara Rao

ABSTRACT

Introduction: In diabetes mellitus the ulcer may be precipitated by atherosclerosis and minor trauma with super added infection.The Aim was to study the incidence, clinical type, diagnostic aids, types of treatment and the result of treatment of leg ulcers.

Materials & Methods: The study comprises 250 cases of ulcer admitted at Government General Hospital, Kakinada, E.G.Dt., AP.

Result: Study of sex incidence shows that preponderance of males over females. The treatment is only directed to controlling of infection & repeated dressing and they are usually of long duration.

Conclusion: Lower and medial part of the leg is effected in 60% of cases. Mostly men are affected. Non specific ulcers were cured by local dressing and systemic antibiotics.

Keywords: Diabetes mellitus

INTRODUCTION

Ulcerations of the lower extremity is fairly common and can present as diagnostic and therapeutic problem to the surgeon. The lower leg is the seat of an ulcer many times more often than the whole of the rest of the surface of the body.It is not surprising that the legs, exposed as they are to injury and having a circulation strained by the upright posture of human beings should be the site of ulcers of many types.The surgeon often consulted by a patient with a chronic ulceration of the leg because the patient needs either skin graft or possible vascular surgery. The surgeon must aware of many conditions that produce leg ulcers and in certain types skin grafting may not be treatment of choice.The common leg ulcer is associated

with chronic edema, induration, pigmentation, loss of hair, eczema of leg is also often present. Varicose veins may or may not be found. Certainly inadequate vascular dynamics can be demonstrated in many ulcerated extremities, particularly when a large segment of the venous system has been obliterated by thrombophlebitis and many ulcers are seen without evidence of obstructive thrombosis.The evidence presented and the views expressed are based on the subject and the analysis of twelve patients studied personally in unselected persons in the sense that every patient coming to us with these ulcers, has been included. Although many patients with other kinds of leg ulcers have been seen, especially whose associated with perforating ulcers, they are not included

in the series, nor those rare ulcers associated with blood diseases.

A personal study of chronic leg ulcers of 12 cases in detail is analyzed and the statistical data pertaining to the subject from the hospital records is taken and a comparative study is done and certain conclusions are drawn. Total number of 250 cases of ulcers were admitted during the period of 2011 to 2014. The age incidence in hospital figures shows high percentage of cases in 3rd, 4th, & 5th decade were as in present series it is high in 4th, 5th & 6th decade. The sex incidence shows preponderance of males over females. In the hospital series the incidence of males is about 70% and females 30%. In present series it is 65%, 35% respectively. As males are more predisposed to occupational trauma and associated constitutional diseases like diabetes, Leprosy, etc. Leg ulcers are more frequently seen among them diseases such as malignancy, varicose veins and arterial disease are more frequent in men and hence contribute to higher incidence of leg and foot ulcers in them, with changing in time the more number of women are also employed in jobs which may predispose to ulceration. The various aetiological factors for the chronicity of leg ulcers as follows. In the hospital series diabetes, trauma and arterial diseases are the commonest predisposing factors for the leg ulcers. The high incidence of diabetes in the hospital series shows that these patients are taken as inpatients mostly for the treatment of diabetes that for the ulcers the other main causes namely arterial diseases, varicosities, malignancy manifest in the ulcer form at one stage or other of the evolution of disease.

As these patients also require treatment for the primary condition, they are admitted in the hospital thus it is curious that although many chronic ulcers of the leg seen in surgical practice are caused by trauma with superadded infection, the statistical data do not contribute to the fact because most of these cases required only simple treatment, namely controlling infection with antibiotics and repeated dressings and hence

they are not taken as inpatients. The duration of the ulcer is described in terms of acute and chronic, the period of one month and below is taken as acute one and more than one month is chronic. The site of the ulcer in most cases was on the medial side of the leg and foot, its incidence being in my personal series is 60% where as in hospital series it was 54% the reasons for the high incidence in the lower part of the leg and foot are as follows.

In my personal series 8 cases were found to be normal and the remaining 4 cases were found to be abnormal. Out of, two are diabetic and 2 belong to thrombo angitis obliterans. There was involvement of peripheral nerve involvement in two of my cases due to diabetes.

RADIOLOGICAL EXAMINATION : This was carried in present cases to find out any evidence of calcification of vessel wall or to know whether the ulcer is adherent to the underlying bone. In one case of arterial disease the calcaneum was found to be involved.

The essential part is that we are treating a human being with an ulcer and not merely some condition of the leg. By keeping this in mind an ulcer should be treated. Role of cigarette smoking is important in prevention of leg ulcers, along with other measures in care of the foot.

Care of the foot: care of the foot is very much required especially in diabetes mellitus. It was demonstrated that provision of foot room in a diabetic clinic had reduced that number of patients requiring admission to hospitals, the number of amputation and mortality. Care of the feet takes place at 3 levels.

1. There are the routine measures which the patient must take care for his feet.
2. Early lesions required expert care either from a chiropodist or a doctor experienced in the case of these patients.
3. Advanced lesions will require specialist's surgical care. Education of the patient is essential function o

all those caring for diabetes. The guidance should be simple and straight forward.

Diabetes may affect the nerve so that the pain signal arising from the foot do not reach the brain. The diabetic must therefore use the other senses especially eyes and hands to detect the earliest signs of injury or infection because these neglected, serious problems may develop.

Daily inspection of the feet is important. Seek advise if any swelling, wax in the skin, redness or source are present. In

protection of feet avoid the footwear and sandals which leaves the toes exposed. In this leather shoes are preferred.

CONCLUSION: The chronic leg ulcers are found to affect mostly men in the 4 th and 5 th decade and the causes are trauma in majority of cases, the causes for chronicity of ulcer are infection, diabetes, arterial diseases, varicosity and Malignancy. In more than 60% of cases the lower and medial part of the leg and foot are affected and the general condition is not good in diabetic ulcers.

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