Scripta Scientifica Medica, vol. 37 (2005), pp 97-99 Copyright © Medical University, Varna

NECROBIOSIS LIPOIDICA DIABETICORUM

CASE REPORT

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ABSTRACT

A case of multifocal necrobiosis lipoidica diabeticorum in a 57 years old female patient is presented. An woman with medical history of red, elevated skin patches over the right leg skin, that dated several years back was admitted. The clinical picture of necrobiosis lipoidica diabeticorum was observed, the oldest lesion being ulcerated. Examinations found diabetes in the patient, the histologic result confirming the diabetic type of necrobiosis. The case is discussed with regard to the less commonly observed multifocal appearance of skin lesions.

Keywords: necrobiosis lipoidica diabeticorum, necrobiosis lipoidica nondiabeticorum

Necrobiosis lipoidica is a chronic, slowly progressive disease, with still not clear ethiology. It is associated with diabetes mellitus in two-thirds of the cases. Many authors note the association of necrobiosis lipoidica with diabetes (4,6). Cases of nondiabetic type of necrobiosis lipoidica are also reported.

Necrobiosis lipoidica shows defective collagen, vasculopathy with deposition of glycoproteins. The leading theory for the pathogenesis of necrobiosis lipoidica emphasize on the diabetic microangiopathy (7). Some authors (5,7) point out the metabolic and vascular factors in the pathogenesis of necrobiosis lipoidica, and do not accept the genetic ones. Others (8) prove the immune complex genesis of the disease or "the accelerated ageing of the collagen" in diabetics (2).

The percentage of necrobiosis lipoidica in diabetics is about 0,3% and females are three times more commonly affected than males. The lesions are usually not numerous, localized on front of the lower legs, with characteristic appearance. The Kobner phenomenon with necrobiosis lipoidica has been reported (3).

CASE REPORT

We present 57-year old, female patient with multifocal necrobiosis lipoidica diabeticorum and recently diagnosed diabetes mellitus .The patient noticed three years ago the appearance of few small, reddish, elevated patches on her right shin. They caused no complains, did not change for a long period of time and were not treated. In the last three months similar new lesions appeared on the legs, abdomen and trunk .Also, the patient noticed ulceration of the oldest lesion on her shin.

On hospitalization few indurated, erythematous plaques were found on both shins, left tight and abdomen. The lesions were oval shaped, with elevated, well demarcated border and atrophic center. The colour of the plaque changed from yellow-brown in the center to purple in the periphery (fig. 1). In the atrophic center teleangiectasiae were observed.

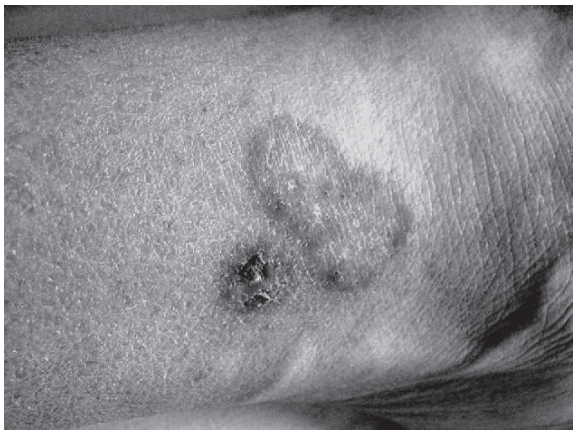

Fig. 1.

In the upper third of the right shin ulcero-crustous lesion was found, with diameter approximately 5cm (fig. 2).

No lesions were found in the upper extremities and the scalp.

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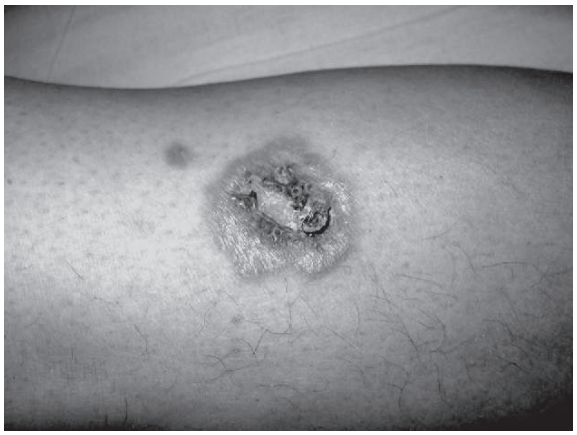

Fig. 2.

Laboratory investigations showed no abnormalities except elevated blood sugar level. Consequent glucose tests confirmed the diagnosis diabetes mellitus.

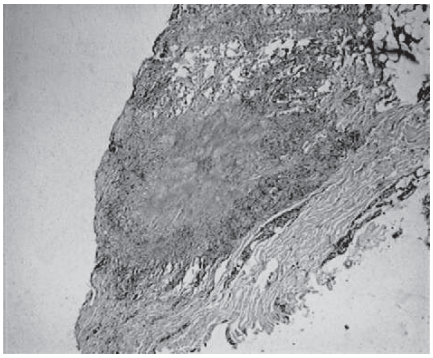

Fig. 3.

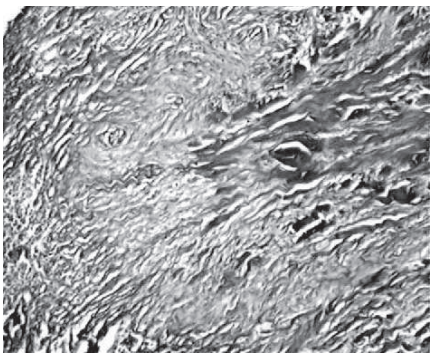

Fig. 4.

Histopathology showed characteristic findings for necrobiosis lipoidica (№ 31/3.02.04): in the lower dermis-zone of disintegration and necrobiosis of collagen fibrils, deposition of mucin, thickened walls of the blood vessel and proliferation of endothelial cells. In hypodermis-perivascular inflammatory infiltration consisting of lymphocytes, histiocytes, plasmocytes, fibroblasts and epitheloid cells (fig. 3, 4).

Differential diagnosis: Garnuloma annulare, sarcoidosis, tertiary lues, lepra, morphea, nodular allergid (Duperrat) were excluded.

DISCUSSION

The clinical and histology findings in our patient proved the diagnosis of necrobiosis lipoidica. This case is surely associated with diabetes mellitus-type: histology showing necrobiosis of collagen and mucin deposition in the lower dermis and recently found diabetes mellitus. The association observed in our patient is no exception from the existing data (4,6).Some authors believe that in diabetics, necrobiosis lipoidica appears in early-adult life, others- in middle age. It is widely accepted that the development of necrobiosis lipoidica does not depend on the adequate control of diabetes.

In our case necrobiosis lipodica precedes diabetes, which correlation is found in only 15% of patients with necrobiosis lipoidica. The onset of necrobiosis follows that of diabetes in 60% of cases and in 25% the two conditions develop simultaneously.

The most common localization of necrobiosis lipoidica is the front of lower legs and the scalp. In 15% of patients there are lesions on both lower extremities, trunk and scalp. Our patient showed numerous, multifocal lesions, involving predominantly the skin of shins, tights and trunk (abdomen).

According to recent data, only in one-quarter of the cases lesions ulcerate. Development of squamous cell carcinoma on persistent ulcerous lesions of necrobiosis lipoidica is reported (1).

CONCLUSION

There is a wide diversity of skin manifestations of diabetes mellitus, highly informative for the clinicist. On one hand, they can draw our attention to certain dermatoses and on the other, lead to diagnosis of diabetes mellitus.

Necrobiosis lipoidica is one of the various dermatoses associated with diabetes mellitus.

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