



# PUSTULAR PSORIASIS

## A THESIS

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By

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## **AIM OF THESIS**

## AIM OF THESIS

This review is written with the intension of presenting basic informations about pustular psoriasis. It seems impossible to cover the disease in its whole globe in a text of such a size. However, efforts are to be made to include most of the essential informations that are up-to-date.

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# INTRODUCTION

## INTRODUCTION

Psoriasis has been a dermatologic stumbling block for many years. The aetiology is unknown, the pathogenesis is disputed and the treatment is unsatisfactory. As a rule, the old adage "Once psoriatic always psoriatic" holds true (Laymon, 1934). Half a century later psoriasis is still a mystery. Pustular psoriasis is an unusual, rare and serious expression of psoriasis (Rehshad, 1983). It represents the extreme form of exudative psoriasis (Landry and Muller, 1972).

The term pustular implies the formation of sterile pustules as an integral part of the disorder and does not include secondary infection which rarely occurs on plaques of psoriasis. The psoriatic nature of pustular psoriasis is confirmed by the strong family history of psoriasis and the histopathological findings (Champion, 1959). The histopathology of pustular psoriasis differs from that of psoriasis vulgaris only in degree. The Munro microabscesses in psoriasis are enlarged enough to be visible to the naked eye in pustular psoriasis. The enlarged Munro microabscesses are

# HISTORICAL REVIEW



## HISTORICAL REVIEW

In 1872, Hebra gave the first description of impetigo herpetiformis in 5 pregnant females . His description was similar to the clinical picture of herpes gestationis, but instead of vesicles, pustules typical of impetigo predominated. Autopsy findings failed to disclose the cause of the disease.

Duhring, (1884) for several years waged a literary war on those who claimed that herpes gestationis and impetigo herpetiformis are distinctive clinical entities. He considered these two conditions as one and the same entity.

In 1888, Radiff Crocker described under the term "dermatitis repens" a chronic form of dermatitis, very resistant to treatment and often with a preceding history of trauma. The condition predominantly affected the upper extremities. He regarded the condition to be neurotic in origin.

In 1890, Hallopeau recorded a case of a male patient with Raynaud's disease since infancy, and in whom periodical suppuration used to develop around the nails of the asphyxial

finigers. There was accompanying symmetrical dermatitis which was pustular in nature. The buccal mucosa was involved in that case.

In 1896, a case similar to that case described by Hallopeau (1890) as well as to dermatitis prepens of Crocker (1888) was reported by Stowers.

In 1897, Hallopeau subsequently gave the term acro-dermatitis to the previous condition that he had described in 1890, after describing a series of similar cases. One year later Hallopeau (1898) divided the cases which he had described into three categories: The pustular, the vesicular and the mixed types. In some of his cases generalization of the condition took place.

Two other cases similar to those reported by Hallopeau (1890 & 1897), Crocker (1888) and Stowers (1896) were reported by Audry in 1901. In an attempt to classify the reported cases, Audry (1901) divided them into 3 groups. The first group included the typical cases in which the nails were often shed. The second group comprised those cases which were non destructive and in which the lesions were localized to the palms and soles, including the purely vesicular varieties. These were collectively termed the abortive form. The third group included those cases in which generalization

of the lesions took place. This group was collectively termed the malignant progressive form.

Von Zumbusch (1910) described a male patient who, after many years of uneventful discoid psoriasis, began to develop recurrent episodes of different nature. These episodes were characterized by generalized erythema with multiple pustules. The skin eruption was usually accompanied by fever and toxæmia. The account given by von Zumbusch for this case leaves no doubt that he was describing what we now call the generalized pustular psoriasis of von Zumbusch. At that time the term pustular psoriasis was not yet known or used.

In 1911, Sutton published a comparative study between dermatitis repens of Crocker and acrodermatitis continua of Hallopeau and reached the conclusion that the two conditions were identical.

In 1918 Burn-Pederson disagreed with Sutton (1911) and expressed that acrodermatitis continua and dermatitis repens were different clinical entities.

In 1925, Strandberg postulated the presence of a relationship between acrodermatitis continua of Hallopeau and pustular psoriasis of von Zumbusch.

In 1927, Barber and Eyre, described 3 cases of which two were of the severe generalized type of acrodermatitis continua while the third one was of the localized variety. They added important contributions to the subject whereby they expressed definitely that dermatitis repens of Crocker and acrodermatitis continua of Hallopeau are one and the same entity. Both of them were the result of infection by strains of staphylococcus aureus that possess distinctive pathological activities. They also stressed the importance of gross septic infection as an aetiological factor which lowers the resistance of the skin to such staphylococcal infection.

In 1927, Kôgoj reported sponge-like pustules filled with polymorphonuclear cells in the epidermis of a patient suffering from acrodermatitis continua of Hallopeau.

In 1928, Dore reported a chronic mild localized type of acrodermatitis continua.

In 1930, MacLeod applied the term pustular psoriasis, for the first time, to describe a case in which the Munro-Subouraud "abscesses" had become large enough to be visible to the naked eye. These lesions were manifested clinically

as pin-point abscesses. When these abscesses appear, without psoriatic patches elsewhere, they may not suggest the diagnosis of psoriasis to the mind at all. The histological picture, he reported, differs from that of psoriasis only in degree.

Barber (1930) applied the term pustular psoriasis of the extremities to the condition described by Audry in 1901 as the abortive type of acrodermatitis continua, and by Dore in 1928 as the mild localized form of acrodermatitis continua. He suggested that the term acrodermatitis continua should be reserved for only two conditions: The localized type of dermatitis repens first described by Crocker in 1888 and the severe generalized pustular eruption commencing on one of the extremities as localized dermatitis repens.

The question of whether two different groups of cases, quite distinct regarding their aetiology and pathology, were not being grouped together under one and the same term of acrodermatitis continua was raised by Ingram in 1930. He suggested that there were two classes: The first one was infective in origin, and should be regarded as chronic pyogenic dermatitis, the cause of which was staphylococcus aureus beyond all doubts. For this group

the term acrodermatitis continua should be reserved. The second group was non infective and the staphylococci were found to play no role in their aetiology. This group was characterized by the absence of any history of injury, the lesions were sterile, and there was no evidence of fungal infection. Moreover, therapeutic tests for both infective agents were negative. Clinically, there were white vesicles in the clefts between the fingers. This second group seems to correspond to what Barber (1930) had defined as pustular psoriasis of the extremities. Ingram agreed that the term pustular psoriasis is the appropriate term for the non infective group.

Cases of chronic pustular eruptions of the extremities continued to be reported by different authors under the terms acrodermatitis continua or perstans, pustular psoriasis of the extremities and dermatitis repens with minimal contributions that can be added to the subject.

In 1934, Andrews described 15 cases with recalcitrant pustular eruptions of the extremities in whom there was no evidence of psoriasis . He drew particular attention to the cyclic nature of the condition.

The following year Andrews and Machacek (1935) described another case which was similar to that described by Barber (1930) as pustular psoriasis of the extremities, by Audry (1901) and Dore (1928) as the mild or abortive form of acrodermatitis continua or perstans. Andrews (1934) postulated the concept of "id" reaction and proposed the title of pustular bacterid to this group of cases. He based his proposal on the presence of leukocytosis, the positive intradermal test to streptococcal toxins, and that irradiation of focal infection sometimes had a beneficial effect on the course of the eruption in some of his cases.

Ingram (1936), divided the cases of chronic pustular eruptions of the extremities into two groups depending on the presence or absence of psoriasis in the individual case.

An interesting case of a female aged 62 years was reported by Duckworth in 1936. The eruption in this case started as suppurative perionychia while she had already psoriatic patches on other parts of her body. Had the digit alone been affected, with no other psoriatic patches, a diagnosis of acrodermatitis perstans might have been made instead of pustular psoriasis of the extremities