REFERENCES


Fibrin Microclot Formation in Patients with Acne

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After the addition of \( E. \) coli polysaccharide to blood from patients with deep inflammatory acne, microclots formed in all patients, whereas this was rarely seen in mild acne and never in controls. Furthermore, spontaneous microclot formation without addition of endotoxin was seen in 5 of the 10 patients with the most severe acne. Key words: Acne; Fibrin; Microclots; Endotoxin. (Received March 19, 1983.)

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When blood is mixed with endotoxin in vitro the formation of stellate fibrin crystals mainly around monocytes has been seen in patients with psoriasis, vasculitis and various skin disorders including acne (1). In certain disorders such as ulcerative colitis, severe psoriasis, certain cancers and during pregnancy the phenomenon could be observed without adding endotoxin (2). It has here been taken as a measure of circulating endotoxins. In the present work we studied the formation of fibrin microclots in patients with acne of various degrees.

PATIENTS

Twenty men and 20 women, aged 15–29, with acne were studied. Blood samples were taken at the first visit, at which time none were undergoing systemic treatment. The degree of acne was scored I–IV, as described by Pillsbury et al. (3). Here grade 1 is comedo acne, II superficial papular and pustular acne, III papular and pustular with some nodules, and IV a very severe acne with extensive nodules and often cysts.
Table I. Number of patients with positive (6 microclots/tube) and negative tests for micro clot formation after addition of saline and endotoxin

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<td>9</td>
<td>2</td>
<td>0</td>
<td>11</td>
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<tr>
<td>Acne grade IV</td>
<td>5</td>
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METHODS
Blood was drawn into 10-ml vacutainer glass tubes (Becton-Dickinson A 4716) containing 144 U of sodium heparin. One-ml aliquots were mixed with 0.01 ml of 1% lipopolysaccharide type B in saline (E. coli 0128B 12 Difco Labs., Detroit Mich., U.S.). Saline was added to the controls. Buffy coat was prepared by centrifuging in plastic tubes as described earlier (4).
After mixing in a polyethylene cup, a sample was drawn up into 50-mm-long rectangular capillary tubes (Microslides, Vitro dynamics, Rockway, N.J. 07866, U.S., Catalog No. 5005, internal diam. 0.05 mm). Each end was sealed with Critoseal® (Lancer, St. Louis, Mo, U.S.), mounted flat on a microscope slide and kept horizontal in an incubator at 37°C for 24 hours (1). The total number of crystalline stars formed were counted in a phase interference microscope.

RESULTS
The results are given in Table I. In patients with severe acne the addition of endotoxin induced formation of fibrin microclots which was most marked in the more severe cases. In 5 of the most severe acne patients microclots were seen without adding endotoxin.

DISCUSSION
Endotoxins are known to activate complement by the alternative pathway and induce fibrin formation as well as the Schwartzman reaction. The increased sensitivity to endotoxin in blood from patients with severe acne could be a factor of importance for the tissue destruction seen in acne conglobata. Contrarily, one could say that the increased breakdown of tissue could give an increased release of thromboplastin as described in tumour tissue (5). However, since thromboplastin does not induce microclot formation when added to the blood, such an explanation seems less likely. The occurrence of microclots without adding endotoxin indicates the presence of circulating endotoxins in the patients with the most severe forms of acne (2).

ACKNOWLEDGEMENT
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REFERENCES
Acquired Immune Deficiency Syndrome (AIDS) Manifesting as Anogenital Herpes zoster Eruption: Demonstration of Virus-like Particles in Lymphocytes

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A case of AIDS manifesting as a necrotic, haemorrhagic anogenital herpes zoster and lymphadenopathy, is described. Investigations of T-lymphocyte subsets showed decreased T\(^+\) and slight increase of T\(^-\). Electronmicroscopy revealed tubuloreticular virus-like structures in lymphocytes. Key words: AIDS; Herpes zoster; Electronmicroscopy; Virus-like structures. (Received June 5, 1983.)

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Acquired immune deficiency syndrome (AIDS) has been described with increasing frequency among homosexual, young men (1, 2). On the basis of a cellular immune deficiency the mortality rate is very high, and the clinical picture is frequently complicated by various opportunistic infections. Many patients have a prodromal stage of half a year or more characterized by fever, weight loss, lymphadenopathy, lymphopenia and diarrhoea. This report describes a case manifesting as an anogenital herpes zoster eruption. Electronmicroscopically, virus-like particles were demonstrated in lymphocytes from an inguinal lymph node.

CASE REPORT

A 27-year-old bisexual man was admitted to the clinic because of an acute eruption in the anogenital skin area for about 1 week. The patient had been employed as a social worker among drug abusers but had never abused drugs or amyl nitrite himself. 1 ½ years before admission to the hospital he had multiple contacts in homosexual circles in the United States and he had also visited several countries in the Middle East, USSR and America. For about 1 ½ year he complained of weakness and weight loss. During the last year he had recurrent fever and influenza-like symptoms and was confined to bed for periods.

The patient had swollen inguinal and axillar lymph nodes. His eruption was confined to the rima intermates and measured about 10×20 cm with haemorrhagic vesicles and bullae, diffuse erythema and some necrotic areas.

Laboratory investigations. Serological tests for syphilis and urethral examinations for gonococci and chlamydia were negative. BSR, Hgb, platelet counts, liver function tests, creatinine, normo-test, quantitation of seroproteins, and X-ray of lungs were all normal. Serological antibody tests against different vira showed: CMV 128 (increased), RSV 8, Coxsackie 8, varicella/zoster 32, HbsAg and anti-HBs were negative. Varicella/zoster virus was grown from the anogenital eruption. Benzidine in faeces was negative. Comprehensive HLA-typing showed the presence of HLA - A3, - W9, - C40, - CW3, - W4 and - DRW7, while - DRS was absent. An inguinal lymph node was removed for histological examination. On light microscopy only reactive changes were observed while electronmicroscopic examination revealed the presence of tubuloreticular structures in cisterns of the endoplasmic reticulum of a large number of lymphocytes, and occasionally also in endothelial cells (Fig. 1).