Acute cutaneous graft-versus-host reaction (GVHR) = ینابذرة عاجل للإدمان الجلدي الرفيع

**Graft Versus Host Disease**

GVHD occurs in situations in which donor immunocompetent T cells transferred into allogenic hosts are

infrequently, unirradiated blood products, solid organ transplants, and maternal-fetallymphocyte engraft
The disease can be divided into an acute and a chronic phase. Acute GVHD typically occurs between 7
In the acute phase, the classic triad includes skin lesions, hepatic dysfunction, and diarrhea. The clinical severity is judged on the extent of these symptoms, and the outcome is often poor for patients with progressive and fatal disease. Cutaneous GVHD may be due to a synergistic effect from local irradiation.
In the chronic phase, an early lichenoid stage and a late sclerodermoid stage can be distinguished. Each stage can occur without the other. The early lichenoid stage is characterized by erythematosus-like eruption, cicatricial alopecia, chronic ulcerations, pyogenic granuloma, and angiomatous lesions.
Acute cutaneous graft-versus-host reaction (GVHR) = ﻣﻠﻀﻴﻒ اﻠﺠﻠد ﺑﺎ رﻔﺾ ارﺘﻜاﺲ
Acute cutaneous graft-versus-host reaction (GVHR) = ﻓﻠﻤﻀﻴﻒ اﻠﺠﻠدﻲ اﻠﻄﻌﻢ رﻔﺾ ارﺘﻜاﺲ

**Histopathology**

The early changes in the acute phase consist of focal basal vacuolation and sparse superficial perivascular lymphocytic infiltrate with exocytosis of individual cells into the epidermis and follicular epithelium. The acute phase has been divided into four histopathologic grades. In grade 1 disease, there is focal or diffuse vacuolization of the keratinocytes, with some accompanied by two or more epidermal lymphocytes, a phenomenon known as satellite cell necrosis. The necrotic keratinocytes contain a pyknotic nucleus and eosinophilic cytoplasm. Grade 3 lesions are characterized by more pronounced vacuolation, focal spongiosis, lymphocytic infiltration, and dyskeratosis at all levels of the epidermis. The basal vacuolization and dyskeratosis of the follicular epithelium may be the only changes. In rare cases, basal vacuolization and dyskeratosis may be the only changes.
In the *chronic phase*, the early lichenoid stage may still show evidence of sate...
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In the late sclerodermoid phase, the epidermis is atrophic, with the keratinocytes being small, flattened, and hyperkeratotic.

**IF Testing.** Epithelial basement membrane zone granular IgM and complement deposition is evident in 39% of patients with the acute form and in 86% of patients with the chronic form of GVHD. In addition, IgM and C3 have been found in the walls of dermal vessels.

**Pathogenesis.**
Acute and chronic forms of the disease have a different pathogenesis. In acute GVHD, it is believed that preparative conditioning regimens lead to the immunosuppression necessary for engraftment but also to the sustained activation of donor T cells. The greater the disparity between donor and recipient MHC, the greater the T-cell response. In identical pairs, the donor T cells do not respond. Infiltration of both CD4+ and CD8+ T cells or with either one of them predominating has been reported. B cells are not found.
The inflammatory cytokines (ILs, GM-CSF, TNF-α IFN-y) produced by activated T cells and by tissue damage during the acute cutaneous Graft-versus-Host Reaction (GVHR) are preferred targets for targeting in the skin. Young rete ridge keratinocytes, follicular stem cells, and Langerhans cells are particularly affected. However, the exact mechanisms by which the skin, liver, and gastrointestinal tract are targeted are not clear.

Less is understood about the pathophysiology of chronic GVHD. The role of donor T cells against the recipient’s tissues is complex, with CD8+ T cells predominating. Tumor necrosis factor-α and IL-1α are constantly produced by keratinocytes in the lesional skin. Further research is needed to elucidate the mechanisms underlying the chronicity of GVHD and to develop effective therapeutic strategies.
Ultrastructural Study

The necrotic keratinocytic cytoplasm is filled with numerous aggregated tonofilaments.
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Differential Diagnosis.
Acute cutaneous graft-versus-host reaction (GVHR) = ﻋﻄﻤ رﻔﺾ ارﺘﻜاﺲ

The acute phase of GVHD is similar to EM, with scattered necrotic keratinocytes and the formation of subepidermal clefts.
The eruption of lymphocyte recovery occurs predominantly in patients after receiving cytoreductive therapy (without bone marrow transplant) for acute...
Distinguishing between the lichenoid lesions of GVHD and lichen planus is often impossible.

However, late sclerotic lesions can be differentiated from scleroderma by the marked atrophy of
the epidermis. Active synthesis of collagen takes place largely in the upper third of the dermis;

in scleroderma, collagen is synthesized mainly in the lower dermis and in the subcutaneous tissu
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