

## Chronic GVHD distinctive features

- Seen in chronic GVHD, but insufficient alone to establish a diagnosis of chronic GVHD
- In all cases, infection, drug effect, malignancy, or other causes must be excluded.

Organ and distinctive signs	Other Causes / Confirmation
<b>Skin</b>	
Depigmentation (Vitiligo)	Features contribute to the diagnosis of chronic GVHD in combination with biopsy or laboratory confirmation of GVHD in skin or another organ.  <b>Requirement for confirmation: biopsy documenting histological features of chronic GVHD (at least „likely“ cGVHD)</b>
Papulosquamous lesions	
<b>Nails</b>	
Dystrophy consisting of longitudinal ridging, splitting or brittle features	Exclusion of other causes of nail dystrophy: <ul style="list-style-type: none"> <li>• Subungual infections/onychomycosis from dermatophytes, yeasts (eg., <i>Candida albicans</i>), or bacteria (including <i>P. aeruginosa</i> and <i>S. aureus</i>).</li> <li>• Tumor in proximal nail fold or nail bed</li> <li>• Trauma</li> <li>• Habitual nail picking</li> <li>• personal history of psoriasis</li> <li>• allergic or irritant contact dermatitis</li> <li>• yellow nail syndrome.</li> <li>• subungual squamous cell carcinoma in chronic unexplained onycholysis affecting only one nail</li> </ul> <b>Requirement for confirmation: evaluation by a dermatologist and exclusion of other causes (see above)</b>
Onycholysis	
Pterygium unguis	
Nail loss (usually symmetric, affects most nails)	

Scalp and body hair	
New onset of scarring or nonscarring scalp alopecia (after recovery from chemoradiotherapy)	<p>After evaluation by a specialist (usually dermatologist) and exclusion of alternative causes, like:</p> <ul style="list-style-type: none"><li>• Malnutrition</li><li>• Endocrine disorders (thyroid disorders, estrogen deficiency)</li><li>• iron deficiency</li><li>• toxic (poisoning: eg. arsenic, mercury) or drug related, eg. Amiodarone, Anticoagulants, Anticonvulsants, Captopril, Cholesterol lowering drugs, Propranolol, etc.</li></ul> <p><b>Requirement for confirmation: evaluation by a dermatologist and exclusion of other causes (see above)</b></p>
Loss of body hair	
Scaling	
Mouth	
Xerostomia	<p>Exclusion of herpes simplex, or Candida albicans infections of the oral cavity, drug toxicity and malignancies (if ulcers). Measurement of saliva production.</p> <p><b>Requirement for confirmation: exclusion of infection by appropriate tests and malignancy by biopsy. Evaluation by dentist or otolaryngologist</b></p>
Mucocele	
Mucosal atrophy	
Ulcers	
Pseudomembranes	
Eyes	
New onset dry, gritty, or painful eyes	<ul style="list-style-type: none"><li>• evaluation by an ophthalmologist experienced in posttransplant care to exclude other causes</li><li>• new ocular sicca documented by low Schirmer's test</li><li>• new onset of KCS by split lamp exam with Schirmer's test</li></ul> <p><b>Requirement for confirmation: evaluation by ophthalmologist + pathological Schirmer's test (with/without split lamp)</b></p>
Cicatricial conjunctivitis	
KCS	
Confluent areas of punctate keratopathy	

Genitalia	
Erosions	Evaluation by an gynecologist experienced in posttransplant care to exclude other causes Including hormonal deficiency, infections, toxic/mechanical irritations or malignancies.  <b>Requirement for confirmation: evaluation by gynecologist + biopsy documenting histological features of chronic GVHD (at least „likely“ cGVHD)</b>
Fissures	
Ulcers	
Lung	
Air trapping and bronchiectasis on chest CT	If BOS is the only clinical manifestation in a patient without a prior established diagnosis of chronic GVHD, air trapping and bronchiectasis on CT scan are not sufficient to establish the diagnosis of cGVHD. In this situation a lung biopsy is required to establish the diagnosis of chronic GVHD.  <b>Requirement for confirmation: biopsy documenting histological features of chronic GVHD (at least „likely“ cGVHD) if only clinical manifestation in a patient without a prior established diagnosis of chronic GVHD</b>
Muscles, fascia, joints	
Myositis or Polymyositis	For diagnosis of chronic GVHD biopsy required in absence of other manifestations of cGVHD to exclude other causes of myositis, incl. drug induced myositis  <b>Requirement for confirmation: muscle biopsy documenting histological features of chronic GVHD (at least „likely“ cGVHD)</b>