Tongue ulceration

Dyskeratosis congenita (DC) is a rare and fatal disease, presenting with a classic triad of skin pigmentation, nail dystrophy, and oral leukoplakia. However, diagnosing DC is challenging based solely on the protean manifestations and multisystemic involvement. Therefore, it is urgent to identify an early feature facilitating the initial suspicion of DC.

Zhang et al. enrolled a cohort of six male children diagnosed with DC, all of whom exhibited erosions or ulcers on the tongue, while five of them did not display the complete classic triad. Strikingly, oral erosions or ulcers have never been included in any clinical diagnostic criteria for DC. Through a retrospective analysis, they further demonstrated that extensive and persistent tongue ulceration emerges as an early and practicable clinical marker, provoking suspicion of DC even in the absence of the classic triad.

The findings challenge prevailing diagnostic criteria and advocate for an expanded consideration of tongue ulceration as a primary and indicative manifestation of DC, thereby affording a strategic advantage for early detection and intervention of this lethal disease [1)].

Differential diagnosis

Tongue ulceration can arise from a wide range of conditions, from benign causes to serious systemic diseases or malignancies. Here's a structured differential diagnosis based on categories:

 Traumatic Causes Mechanical trauma (e.g., biting, sharp tooth, ill-fitting denture)

Thermal or chemical burns (e.g., hot food, acidic substances)

Frictional keratosis/ulceration (e.g., repeated irritation)

 Infectious Causes Viral: Herpes simplex virus (HSV) (primary or recurrent)

Varicella-zoster virus (shingles, esp. in older adults)

Coxsackie virus (e.g., hand-foot-mouth disease)

Bacterial: Secondary infection of traumatic ulcers

Syphilis (chancre, mucous patches)

Tuberculosis (rare)

Fungal: Candidiasis (particularly chronic hyperplastic candidiasis, often painful)

 Autoimmune and Immune-Mediated Conditions Aphthous ulcers (canker sores) – minor, major, or herpetiform

Behçet’s disease

Lichen planus (erosive type)

Lupus erythematosus

Pemphigus vulgaris

Mucous membrane pemphigoid

 Neoplastic Causes Squamous cell carcinoma – esp. in chronic, non-healing ulcers, indurated, often lateral tongue

Lymphoma – possible ulcerating mass

Metastases (rare, but can occur)

 Hematologic and Nutritional Iron-deficiency anemia

Vitamin B12 or folate deficiency

Neutropenia / Agranulocytosis

Leukemia – may cause ulceration from thrombocytopenia or direct infiltration

 Drug-induced or Iatrogenic NSAIDs (aphthous-like ulcers)

Methotrexate

Chemotherapy / radiotherapy (mucositis)

Immunosuppressants

 Others Crohn’s disease

Celiac disease

Sarcoidosis

Stress-related ulcers

Heavy metal toxicity (e.g., mercury, lead – rare)

 Key Workup Considerations Clinical history (onset, duration, triggers, systemic symptoms)

Examination (size, location, base, borders, induration)

Blood tests (CBC, iron studies, B12, folate, autoimmune markers)

Swab/culture or PCR if infection suspected

Biopsy for persistent or suspicious ulcers (esp. >2 weeks)

1)

Zhang X, Dan H, Zhou Y, Sun W, Yang W, Zeng X. Extensive and persistent tongue ulceration is an early character of dyskeratosis congenita. Orphanet J Rare Dis. 2025 Apr 21;20(1):192. doi: 10.1186/s13023-025-03721-4. PMID: 40259308.

From:
https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=tongue_ulceration

Last update: **2025/04/22 09:58**