Impetigo Diagnosis Handout

Impetigo is a common bacterial skin infection that most commonly affects children. It can be easily spread through close physical contact or by sharing items such as towels, clothing, or toys. Impetigo typically appears as red sores on the face, especially around the mouth and nose area. In this handout, we will explain how impetigo is diagnosed and provide some tips for prevention.

The two types of impetigo are non-bullous impetigo (i.e., impetigo contagiosa) and bullous impetigo.

Non-bullous impetigo is the most common form of this infection. It typically manifests as red sores that rapidly rupture, ooze, and develop a yellowish-brown crust. These sores often appear on the face, particularly around the nose and mouth, but can spread to other body areas through direct contact. The infection is highly contagious, making it essential for those affected to practice good hygiene to prevent transmission.

Bullous impetigo is less common and predominantly affects infants and young children. This type is characterized by large, painless, fluid-filled blisters that can develop on the trunk, arms, and legs. These blisters are more significant than those seen in non-bullous impetigo and may persist longer. Understanding the symptoms of bullous impetigo is vital for parents and caregivers to seek timely medical attention.

Diagnosing impetigo

The diagnosis of impetigo is usually based on the characteristic appearance of the skin lesions. A physical examination is typically all that is needed for a diagnosis. In some cases, a sample of the affected skin may be taken and sent to a laboratory for analysis. This can help confirm the presence of bacteria or rule out other skin conditions.

In addition to examining the skin, you may also ask about any symptoms or recent exposure to others with impetigo. You may also check for signs of complications, such as swollen lymph nodes or fever.

The diagnosis of non-bullous and bullous impetigo is nearly always clinical. Differential diagnosis includes many other blistering and rash disorders.

Skin swabs cannot differentiate between bacterial infection and colonization. In patients in whom first-line therapy fails, culture of the pus or bullous fluid, not the intact skin, may be helpful for pathogen identification and antimicrobial susceptibility.

Although serologic testing for streptococcal antibodies is helpful in the diagnosis of acute poststreptococcal glomerulonephritis, it does not aid in the diagnosis of impetigo.

Differential diagnosis

Impetigo should be differentiated from other common skin conditions such as eczema, herpes simplex virus infection, and candidiasis. In some cases, a bacterial culture or skin biopsy may be necessary to confirm the diagnosis. Below are some details about the differential diagnosis of impetigo.

Skin conditions that might be mistaken for bullous impetigo

Diagnosis	Distinguishing features
Bullous erythema multiforme	Vesicles or bullae arise from a portion of red plaques, 1 to 5 cm in diameter, on the extensor surfaces of extremities.
Bullous lupus erythematosus	Widespread vesiculobullous eruption that may be pruritic; tends to favor the upper part of the trunk and proximal upper extremities.
Bullous pemphigoid	Vesicles and bullae appear rapidly on widespread pruritic, urticarial plaques.
Herpes simplex virus	Grouped vesicles on an erythematous base that rupture to become erosions covered by crusts, usually on the lips and skin; may have prodromal symptoms.
Insect bites	Bullae seen with pruritic papules grouped in areas where bites occur.
Pemphigus vulgaris	Nonpruritic bullae, varying in size from 1 to several centimeters, appear gradually and become generalized; erosions last for weeks before healing with hyperpigmentation, but no scarring occurs.
Stevens-Johnson syndrome	Vesiculobullous disease of the skin, mouth, eyes, and genitalia; ulcerative stomatitis with hemorrhagic crusting is the most characteristic feature.
Thermal burns	History of burn with blistering in second-degree burns.
Toxic epidermal necrolysis	Stevens-Johnson–like mucous membrane disease followed by diffuse generalized detachment of the epidermis.
Varicella	Thin-walled vesicles on an erythematous base that start on the trunk and spread to the face and extremities; vesicles break and crusts form; lesions of different stages are present at the same time in a given body area as new crops develop.

Skin conditions that might be mistaken for non-bullous impetigo

Diagnosis	Distinguishing features
Atopic dermatitis	Chronic or relapsing pruritic lesions and abnormally dry skin; flexural lichenification is common in adults; facial and extensor involvement is common in children.
Candidiasis	Erythematous papules or red, moist plaques; usually confined to mucous membranes or intertriginous areas.
Contact dermatitis	Pruritic areas with weeping on sensitized skin that comes in contact with haptens (e.g., poison ivy).
Dermatophytosis	Lesions may be scaly and red with slightly raised “active border” or classic ringworm; or may be vesicular, especially on feet.
Discoid lupus erythematosus	Well-defined plaques with adherent scale that penetrates into hair follicles; peeled scales have “carpet tack” appearance.
Ecthyma	Crusted lesions that cover an ulceration rather than an erosion; may persist for weeks and may heal with scarring as the infection extends to the dermis.
Herpes simplex virus	Vesicles on an erythematous base that rupture to become erosions covered by crusts, usually on the lips and skin.
Insect bites	Papules usually seen at site of bite, which may be painful; may have associated urticaria.
Pemphigus foliaceus	Serum and crusts with occasional vesicles, usually starting on the face in a butterfly distribution or on the scalp, chest, and upper back as areas of erythema, scaling, crusting, or occasional bullae.
Scabies	Lesions consist of burrows and small, discrete vesicles, often in finger webs; nocturnal pruritus is characteristic.
Sweet’s syndrome	Abrupt onset of tender or painful plaques or nodules with occasional vesicles or pustules.
Varicella	Thin-walled vesicles on an erythematous base that start on trunk and spread to face and extremities; vesicles break and crusts form; lesions of different stages are present at the same time in a given body area as new crops develop.

Diagnosis and treatment of impetigo. (2007, March 15). PubMed. https://pubmed.ncbi.nlm.nih.gov/17390597/

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