

Intertrigo

Intertrigo refers to the rash that is often seen where two skin surfaces are in contact such as beneath the breasts or pannus (abdominal skin folds). It can also involve the area under the arms (axillae), the scrotum or intergluteal (buttocks) folds, web spaces of the toes and fingers and the corners of the mouth.

Causes

It can be caused by bacteria but most often is a superficial infection caused by Candida (yeast). Intertrigo caused by Candida will be covered here.

Candida is considered part of the normal flora in the gastrointestinal tract, the mouth and the vagina. Normal flora consists of many bacteria as well as yeast that coexist and protect the body from invading pathogens. If the conditions are just right however, Candida can multiply and take over, causing an infection itself.

Risk factors

The warm and moist environment of skin folds are an ideal place for Candida to grow and multiply. Factors that can influence and promote growth in these areas include:

1. Factors that increase skin friction:
 - Obesity
 - Tight fitting clothing
 - Activities that promote skin-on-skin rubbing
2. Factors that increase moisture:
 - Obesity
 - Occlusive clothing
 - Hyperhidrosis (excessive sweating)
 - Incontinence
 - Occupational exposure to moisture such as wearing rubber gloves
3. Factors that interfere with the immune response
 - Diabetes mellitus
 - Topical or oral cortisone use (prednisone or hydrocortisone)
 - Antibiotics, especially if used for long periods of time or repeatedly
 - HIV infection
 - Chemotherapy
 - Some medications that are used to decrease the immune response such as treatment for rheumatoid arthritis
 - Medications that are used in transplant patients.
 - Occupational exposure to sugar, such as in bakers

Clinical features

Intertrigo presents as a red area with breakdown of the skin as well as scaling, usually in skin folds. Red spots or small blister-like lesions (pustules) called satellite lesions can often be seen along the edges of the rash. The lesions are itchy and can be painful if there is significant skin breakdown.

Diagnosis

Intertrigo is generally diagnosed by appearance but scrapings can also be examined. The scrapings are mixed with a solution and examined with a microscope.

Conditions that mimic intertrigo:

- Tinea cruris
- Eczema due to allergic conditions
- Contact dermatitis (contact of things causing an allergic reaction such as nickel which is found in a lot of jewelry)
- Skin conditions such as seborrhea or psoriasis
- Bacterial skin infections

Treatment

1. Addressing predisposing factors is the most important step in treatment.
2. Topical antifungal creams such as Nystatin, Clotrimazole, and Ketoconazole are frequently prescribed.
3. Antifungal powders that help to dry the moist skin areas can be used for prevention.
4. Severe infections or those not responding to topical treatment may require an oral antifungal agent such as Fluconazole.

Tinea cruris (jock itch)

Tinea cruris is a special form of tinea that involves the crural fold (groin). It is far more common in men than in women. It often begins after physical activities that cause sweating. The source of the fungus causing this is usually the person's own tinea pedis (athlete's foot).

Clinical features

Tinea cruris usually begins with a red patch high in the inner aspect of one or both thighs (usually opposite the scrotum in men). As it spreads, a clearing in the center is often seen and the outside edges are slightly elevated, red, and have a sharp border. Very tiny blister-like lesions can sometimes be seen along the border. The rash can spread down the thighs, up into the pubic region and even extend onto the buttocks. It generally does not involve the scrotum unlike Candidal intertrigo.

Diagnosis

Examination of scrapings from the lesion can be done and will show typical fungal features. Conditions that mimic tinea cruris include psoriasis, seborrheic dermatitis, and intertrigo.

Conditions that mimic intertrigo:

- Intertrigo
- Seborrheic dermatitis
- Psoriasis

Treatment

1. Topical antifungal creams such as Clotrimazole, Econazole, Ketoconazole, and Miconazole are frequently prescribed. Of note, Nystatin is not effective for tinea cruris.
2. Treatment usually is necessary for 3 to 4 weeks
3. Daily application of talcum, antifungal, or other powders to keep the area dry will help prevent recurrences.
4. Hot baths and tight fitting clothing should be avoided. Males may do better wearing boxers rather than briefs and women should wear cotton underwear and avoid tight-fitting pants.