Balanitis and balanoposthitis

Introduction
- **Balanitis**, or inflammation of the glans, and **balanoposthitis**, or the combined inflammation of the glans and foreskin, generally appear in uncircumcised men.
- It appears more frequently in children and in **diabetics**.

Etiology
- **Irritative**: in cases of redundant prepuce with poor personal hygiene, saprophytic *fusospiral* microorganisms from the smegma may act as irritant pathogens. Certain soaps can also provoke balanic irritation.
- **Phimotic**: Preputial adhesions or sclerosis can lead to balanitis.
- **Trauma** or postcoital hypersensitivity.
- **Infectious**: in children, this tends to be a bacterial infection whereas in adults it is usually the result of a bacterial or fungal growth in an area predisposed by moisture and maceration injuries. It can also appear as a result of STD.
- **Allergic** reaction or contact with local irritants (detergents, soaps, colognes).
- **Specific**: such as those produced in *Reiter’s* syndrome, *Zoon’s* balanitis, *Balanitis Xerotica Obliterans* (BXO), or premalignant lesions such as *Bowen’s* disease or leukoplakia.
- **Secondary to systemic diseases**: diabetes, HIV, AIDS.

Symptoms
- **Edema** and balano-preputial *erythema*. May be accompanied by **pruritus**.
- **Urethral discharge**.
- **Ulcerations**: although these are uncommon.
- **Discharge accumulated** in the balanopreputial sulcus.
- **Dysuria** and difficulty urinating resulting from chronic irritation.
- **Meatal stenosis** in cases of *Balanitis Xerotica Obliterans*.

Diagnosis
- **Preputial discharge culture** to rule out bacterial, viral, or fungal infection.
- **Urine culture**: to identify *Chlamydia, Mycoplasma, Trichomonas, Treponema*, or *Candida*.
- **Biopsy** if any doubt remains.
- **VCUG**: in cases of BXO, detects distal urethral stenosis with the passage of contrast to the interior of the glands of *Littre*.

Differential diagnosis
- **Acute infectious balanitis**: *erythema-edema* of the glans, sulcus, and foreskin.
- **Trichomonal balanitis**: young patients with erosive *balanitis* and associated urethritis.
- **Candida balanitis**: diffuse *erythematous lesion* with *edema* and local irritation.
- **Psoriasis**: proliferation of *keratinocytes* that produce thick *plaques*. Family history.
- **Lichen planus**: bright *purple* lesion with streaks.
- **Bowen’s disease**: premalignant lesion with velvety *plaques*.
- **Reiter’s syndrome**: *circinate balanitis* with arthropathy and ocular and cutaneous lesions.
- **Leukoplakia**: premalignant lesion with whitish *papules, ulcers*, and intense *pruritus*.
- **Zoon’s balanitis**: bright, smooth *plaques* surrounded by *cayenne pepper*-type spots.
- **Balanitis Xerotica Obliterans**: inflammatory *lesion* characterized by the induration of the perimeatal prepuce, which presents as whitish and atrophied, preventing its normal retraction. It can extend to the remaining skin of the penis. Considered synonymous with *sclerotic and atrophic lichen*. May be an autoimmune disease.
Treatment

- **Meticulous daily hygiene** with soap and water. The area should remain clean and dry. This is especially important in cases of urethro-vesical catheters.
- **In cases of suspected STDs**: specific treatment (See chapter: Sexually Transmitted Diseases).
- **In cases of suspected non-specific bacterial superinfection**: topical ointments may be applied along with systemic treatment if symptoms are very acute.

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<thead>
<tr>
<th>Generic name</th>
<th>Brand name®</th>
<th>Dose</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Bacitracin-Neomycin</td>
<td>NEOCIN cream</td>
<td>1 application/12 h</td>
<td>3-7 d</td>
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<tr>
<td>Cefalexin</td>
<td>CEFALEXIN</td>
<td>1 tab of 500 mg/6 h</td>
<td>2-4 d</td>
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- **If a fungal infection is suspected**: topical or systemic treatment should be initiated depending on the severity of the infection and patient anxiety level.

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<tbody>
<tr>
<td>Clotrimazole</td>
<td>CANESTEN cream</td>
<td>1 application/12 h</td>
<td>3-7 d</td>
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<tr>
<td>Miconazole</td>
<td>GYN O-DAKTARIN cream</td>
<td>1 application/12 h</td>
<td>3-7 d</td>
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<tr>
<td>Fluconazole</td>
<td>DIFLUCAN</td>
<td>1 tab of 150 mg sd</td>
<td>sd</td>
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- **Topical corticosteroids** in cases of balanitis with clearly non-infectious etiology.

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<tbody>
<tr>
<td>Fluocortin</td>
<td>VASPI cream</td>
<td>2-3 applications/d</td>
<td>14 d</td>
</tr>
<tr>
<td>Fluocinolone*</td>
<td>SYNALAR</td>
<td>2-3 applications/d</td>
<td>14 d</td>
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* Moderate potency

- **Circumcision** in refractory or frequently recurring cases.
- **Dorsal slit** of the foreskin in cases of irreducible paraphimosis.
- **Dilation of the urethral meatus** or **meatotomy/meatoplasty** in cases of distal stenosis.

Prophylaxis and follow-up

- **Examination and treatment of sexual partner(s)** in cases of balanitis caused by:
  - Chlamydia.
  - Mycoplasma.
  - Treponema pallidum.
  - Candida.
  - Trichomonas.