Common Dermatologic Conditions

Jay C. Vary, MD, PhD[a,*], Kim M. O'Connor, MD[b]

KEYWORDS

• Alopecia • Facial rashes • Intertriginous rashes • Leg rashes • Acne

KEY POINTS

- The most common causes of alopecia are non-scarring and non-inflammatory and can be distinguished by the pattern of hair loss and the presence of ongoing shedding.
- Age of onset, distribution of the rash, presence or absence of comedones or systemic symptoms can help distinguish between the causes of facial rash.
- The utilization of the KOH prep and Wood's lamp examination can aid in the diagnosis of intertriginous rashes.
- Stasis dermatitis and contact dermatitis on the legs are commonly mistaken for infection but history and examination findings can usually quickly exclude infection.

INTRODUCTION

The skin serves many functions other than simply wrapping and containing all the deeper structures.[1,2] It is composed of an uppermost self-renewing epidermis of primarily keratinocytes that becomes scaly and red in response to superficial inflammation from irritation or infection. Immediately subjacent is the dermis, which contains not only connective tissues and vasculature but also the skin appendages. These appendages are derived from buds of the epidermis that grow down into the dermis early in development and result in the eccrine and apocrine sweat glands, nails, and the pilosebaceous unit that is the target of inflammation in alopecia, acne vulgaris, and rosacea. Below the dermis, the subcutaneous tissue lies above muscular fascia in most areas of the body, and is composed of adipocytes as well as the larger trunks of vessels and nerves passing through.

Conflict of Interest Disclosures: The authors have no conflicts of interest to report including no financial conflicts of interest.
Role in Authorship: All authors had access to the data and had a role in writing the article.
[a] Division of Dermatology, Department of Internal Medicine, The University of Washington, Box 354697, 4225 Roosevelt Way Northeast, 4th Floor, Seattle, WA 98195, USA; [b] Division of General Internal Medicine, Department of Internal Medicine, Box 354760, 4245 Roosevelt Way Northeast, Seattle, WA 98195, USA
* Corresponding author.
E-mail address: jvary@u.washington.edu

Med Clin N Am 98 (2014) 445–485
http://dx.doi.org/10.1016/j.mcna.2014.01.005 **medical.theclinics.com**
0025-7125/14/$ – see front matter

Dermatologic diseases can all be thought of as perturbations of the components of these 3 layers of cells and structures. Loss of the barrier function, exuberant inflammation or autoinflammation, aberrant neurologic signals, infection, or metabolic disruptions in normal function account for virtually all of the more than 3000 dermatologic diagnoses. Identifying the specific causes can be challenging, and the causes of many dermatologic diseases remain unknown. Many diseases can appear similar to each other, and it is common for skin diseases to present uncommonly. Traditional texts and atlases of dermatology often present only 1 or 2 images of any skin disease, whereas newer Internet-based sources can produce hundreds of images of a single diagnosis to allow a better appreciation of how a disease can vary in its presentation. However, trying to match a patient's skin to a picture or set of pictures can be time consuming and prone to error.

This review attempts to approach the subject as a clinician would: exploring the differential diagnosis for common complaints. The authors start with the hair and briefly describe how to approach the patient with hair loss to reach a diagnosis. Next, the 4 most common causes of hair loss, namely androgenetic alopecia, female pattern hair loss (FPHL), alopecia areata (AA), and telogen effluvium (TE), are discussed in depth. The discussion then turns to the patient with a facial rash. Differentiation of acne vulgaris from rosacea, periorificial dermatitis, and seborrheic dermatitis is covered, as is differentiation of erysipelas and cellulitis, and the malar rash of systemic lupus erythematosus (SLE). Axillary and inguinal rashes are presented in the section on intertriginous rash, and include candidal intertrigo, tinea, erythrasma, inverse psoriasis, and the common frictional and irritant contact dermatitis referred to as intertrigo. Finally, the authors provide quick and reliable signs and symptoms to differentiate infectious causes of an edematous red leg that may require immediate antibiotics or admission from subacute mimics such as contact and stasis dermatitis. A brief discussion of deep vein thrombosis (DVT) is also included.

ALOPECIA

One of the more common dermatologic complaints seen by dermatologists and primary care physicians alike is alopecia or hair loss. The term alopecia is usually used to refer to loss of hairs at the follicle, although often patients will complain of hair loss that is in fact due to breakage of the hair shaft resulting from congenital or acquired causes of hair-shaft fragility instead of true loss of the entire hair. These entities are usually easily differentiated by an initial examination of the scalp and a hair-pull test. The hair-pull test is done by grasping hairs within approximately 1 cm^2 of scalp and pulling firmly between the thumb and forefinger (violent pulling such as with the aid of a clamp is not recommended); more than 5 hairs per location is considered abnormal. Examination of the ends of the hair can further differentiate between broken hairs that will end abruptly or hairs that have come from the follicle and will have some remnant of a follicle. Normally only resting telogen or "club" hairs can be pulled, which have a small spherical follicular remnant at the end. Actively growing anagen hairs will keep part of the root sheath, which appears like a sheath on the end of the hair (**Fig. 1**). Anagen hairs should never normally be released with a firm pull unless there is an underlying disease process.

The potential causes of alopecia are many (**Table 1**), but the differential diagnoses can be focused by an examination of the scalp to determine if there is evidence of scarring or inflammation. Unlike some mammals that can regenerate the pilosebaceous unit, human hair follicles never regenerate if destroyed. Scarring can be subtle in early stages, but close examination shows a complete loss of the follicular os and