I. BACKGROUND  Seborrheic keratoses (SKs) are common benign epidermal tumors found in middle-aged and elderly populations. The term “seborrheic” refers to the lesion's greasy appearance and location in areas that have many sebaceous glands. However, there is no known relationship to sebaceous gland function, seborrhea, or seborrheic dermatitis. The cause of SKs is unknown. Genetics (polygenic), sun exposure, and infection are all implicated as possible predispositions to developing SKs. In mature SKs, deoxyribonucleic acid (DNA) synthesis is decreased, while ribonucleic acid and protein synthesis is increased with irregularities in the expression patterns of apoptosis markers. Many patients with SKs have positive family history for the condition, but validated studies are lacking. Sun exposure has been shown to increase the prevalence of SKs, but there are some studies disagreeing with the role of genetics in SK development. Viral infection has also been explored as a possible cause of SKs. SKs from the genital region may contain human papillomavirus (HPV) DNA, but the role of HPV in developing SKs has been controversial. A recent study reported that HPV-positive genital SKs arise in younger, sexually active age groups.

While concern about these lesions is primarily cosmetic, some lesions with multiple dark colors raise the question of melanoma. Rarely, malignant lesions (i.e., basal cell carcinoma [BCC] and squamous cell carcinoma [SCC]) can arise within SKs, especially the reticulated type on sun-damaged skin. In a retrospective study of 813 histologically diagnosed SKs, 5.3% were associated with nonmelanoma skin cancer. No melanomas were observed. The most common malignancy was Bowen disease, followed by BCC, then invasive SCC.

II. CLINICAL PRESENTATION  SKs are generally asymptomatic. Irritated lesions or those in intertriginous areas may cause intense pruritus. SKs start as small flesh-colored, yellow, or tan-colored waxy papules that may grow to become dark brown or black greasy verrucous lesions with a distinct border (Fig. 39-1). The rough scale may sometimes flake or be rubbed off but will regrow. The keratoses appear to be “stuck on” the skin (Fig. 39-2), and close inspection with a hand lens will expose the presence of horn cysts or dark keratin plugs. Stucco keratosis, a variant of SKs, is 1- to 5-mm lightly colored keratotic papules on the dorsa of the hands and feet and lower legs. A variant of SKs known as dermatosis papulosa nigra is seen primarily on the cheeks in blacks or other dark-skinned individuals with a familial predisposition. These lesions are small, pigmented papules that may be pedunculated.
III. WORKUP  Any rapidly growing, symptomatic, atypical lesions should be pathologically examined, and the base of all cutaneous horns submitted to rule out any malignancies such as nonmelanoma skin cancer or melanoma. Shave biopsies or curettage specimens are often not sufficient for definitive histologic diagnosis. Please see Table 39-1 for differential diagnoses.
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The development of multiple SKs has been attributed to estrogen therapy, preexisting inflammatory dermatoses, chemotherapy (especially cytarabine), and various internal malignancies. The latter association (Leser-Trélat sign), although somewhat controversial, should at least arouse one’s suspicion when multiple eruptive SKs arise rapidly in association with skin tags and acanthosis nigricans. Adenocarcinoma of the stomach or lung is the most commonly associated malignancy with the sign of Leser-Trélat sign.

IV. TREATMENT

SKs are benign lesions but may be symptomatic with pruritus or bleeding. Any destructive modality may be used to treat these lesions. However, the patient must be warned that destructive treatments may lead to scarring, hypopigmentation, or recurrence (Table 39-2).

A. Cryosurgical Application of liquid nitrogen for 15 to 20 seconds is generally the simplest method of destruction. Multiple areas can be treated easily without anesthesia.

B. Simple Curettage, with or without anesthesia, leaves an excellent cosmetic result. Lesions lightly frozen with a refrigerant, CO₂, or liquid nitrogen may sometimes be scraped off more easily. Monsel solution (ferric subsulfate), ferric chloride, aluminum chloride, Gelfoam, weak acids (30% trichloroacetic), or pressure may be used for hemostasis. Light electrodesiccation will accomplish the same end but may induce a small scar. Lesions should remain uncovered or have only a light ointment applied such as Aquaphor Healing Ointment.

C. Very Thick or Pedunculated SKs may be best removed with a shave excision or with sharp scissors. For lesions with a possibility of malignancy, removal should be done to yield a pathology sample.
D. Lesions of Dermatosis Papulosa Nigra are best treated by simple curetage but may also be treated by Gradle scissor excision, very light electrosurgery, laser surgery, or cryosurgery. It is particularly important not to treat too aggressively so as to avoid posttreatment hypopigmentation, especially in darker skin patients.

E. Ammonium Lactate 12% Lotion (Lac-Hydrin) applied b.i.d. for 1 to 2 months may reduce the height of SKs but will not change the width or color of the lesions.

F. SKs have also been managed with laser treatments such as 532-nm diode lasers with color enhancement using a red marker or ferric subsulfate. In a study of 326 patients with SKs, 93% of the lesions were resolved completely without any hyperpigmentation or hypertrophic scar formation following laser treatment.

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Suggested Readings


**TABLE 39-2 Primary Treatment Options**

1. Cryotherapy
2. Cryotherapy with curettage
3. Shave excision after anesthesia
4. Electrodesiccation
5. Laser ablation