Skin Carcinomas

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(photographed by Dr. Kanishka de Silva)

1. A 64-year-old woman with eczematous rash on her right nipple had been treated with topical steroids without clinical improvement for more than 9 months.
   (a) What is your differential diagnosis?
   (b) What are the key features in this case which would help you to differentiate clinically?
   (c) How do you confirm the diagnosis?

(photographed by Dr. Ranthilaka R. Ranawaka)

2. A 74-year-old woman came with this asymptomatic lesion for more than 2 years.
   (a) What is your diagnosis?
   (b) What are the important clinical features which help to diagnose?
   (c) What are the treatment options?

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(photographed by Dr. Ranthilaka R. Ranawaka)

3. A 67-year-old woman complained of this asymptomatic black patch on her left heel, which she had noticed a few weeks back.
   (a) What are your differential diagnoses?
   (b) What is your most probable diagnosis?
   (c) How do you manage this?

Answers

1. Nipple eczema, Paget disease of the breast
   Elderly woman, long duration, no response to treatments
   Biopsy from the eczematous lesion
2. Basal cell carcinoma
   Elderly woman, relatively asymptomatic, long duration, pearly raised telangiectatic edges
   See text
   Acral lentiginous melanoma, pigmented naevus, a pigmented stain on the soles
   Acral lentiginous melanoma
   Excision with wide margin, oncology opinion
3. Pigmented naevus, pigmented stain, malignant melanoma
   In this patient, this was confirmed malignant melanoma by histopathology. In an elderly woman, recent onset pigmented lesion on soles and palms are melanoma unless proven otherwise.

50.1 Introduction

Skin cancers are not common in pigmented skin compared to Fitzpatrick skin type I to III. Out of all, basal cell carcinoma (BCC) is the most common skin cancer found in our setting. Incidence of BCC in one skin centre is around 10 cases per 5000 new cases per year. Squamous cell carcinoma (SCC) is the second commonest, which shows the incidence of less than 3 cases per 5000 new cases per year. The author had only two cases of malignant melanoma and two cases of Paget disease over 20 years clinical experience.

Due to the flexible referral system in healthcare system in Sri Lanka where patients are free to seek care from any facility, these figures do not reflect the true incidence of skin cancers in Sri Lanka. Hypopigmented mycosis fungoides seems to be more prevalent in skin clinics (3–4 cases per 5000 new cases per year in one skin clinic) compared to other skin cancers (excluding BCC), since hypopigmented MF is suspected and diagnosed only by dermatologists.

50.2 Basal Cell Carcinoma (BCC)

BCC is the commonest skin carcinoma in pigmented skin. Approximately 80% of BCC occur on the head and neck, and clinical diagnosis is relatively straightforward (Tourli et al. 2016).

Clinical Presentation Early BCCs are usually small, translucent or pearly, with raised telangiectatic edges. More advanced lesions can present as classical rodent ulcer with an indurated edge and an ulcerated centre.

Clinical Variants (Madan and Lear 2016)

1. *Nodular BCC* is the commonest subtype of BCC and usually presents on the head and neck. Pigmented as well as nodular BCC may cause diagnostic confusion with melanoma.
2. *Superficial BCC* is less common and predominantly present on the trunk. Superficial BCCs are often pigmented and can sometimes be difficult to differentiate from psoriasis, discoid eczema or Bowen disease.
3. *Morphoeic BCC* has ill-defined borders, can be difficult to diagnose clinically and often present late. Dense fibrosis of the stroma produces a thickened plaque rather than a tumour.
4. *Fibroepithelial BCC (premalignant fibroepithelial tumour)* is a benign-appearing pedunculated pink premalignant tumour that may resemble a skin tag.
5. *Advanced and metastatic BCC* is a manifestation of prolonged neglect.
6. *Ulcerated BCC* may start as a small macule or papule, but with expansion of the thread-like margins, the attenuated surface ulcerates.

Histopathology Islands of atypical proliferation of basaloid cells in the dermis (Enache et al. 2019)

Management Both tumour (clinical and histological nature, size and site) and patient factors determine the choice of treatment of BCC. Other factors dictating the choice of treatment include local experience and availability of treatments, which may indirectly depend upon the cost (Bertozzi et al. 2019). The risk of recurrence after treatment is highest in the tumours with aggressive growth patterns, in tumours located in the facial H-zone and in recurrent tumours. The optimal treatment of high-risk BCCs is surgical excision or radiotherapy. Low-risk tumours may be treated with cryotherapy, curettage, photodynamic therapy or topical agents (Glud et al. 2016; Fukumoto et al. 2019):

1. Topical imiquimod
2. Photodynamic therapy
3. Excision with margin (4–5 mm surgical margin)
4. Mohs micrographic surgery
5. Curettage and electrodesiccation
6. Cryosurgery—the application of liquid nitrogen
7. Superficial and electron beam radiotherapy
8. Carbon dioxide laser (Salavastru et al. 2018) (Figs. 50.1, 50.2, 50.3, 50.4, 50.5, 50.6, 50.7, 50.8, 50.9, 50.10, 50.11, 50.12, and 50.13)

50.3 Bowen Disease

Bowen disease is a form of intraepidermal (in situ) SCC. It is estimated that in general population around 3–5% of Bowen disease transform into invasive squamous cell cancer (Ragi et al. 1988). Bowen disease is not common in pigmented skin.

Clinical Presentation Small, red and slightly scaly area, which is symptomless and gradually enlarges in an irregular fashion. This is the typical presentation in fair skin person, while in skin of

Fig. 50.1 Pigmented nodular BCC (photographed by Dr Ranthilaka R. Ranawaka). A 44-year-old man came with numerous (more than 30) pigmented papules and nodules on his face, trunk and limbs. Four lesions were excised and found BCC in one (arrow) and seborrhoeic keratoses in other three. He did not have other features of naevoid basal cell carcinoma syndrome (NBCCS). The patient was referred to the oncologist for opinion on further management

Fig. 50.2 Nodular BCC, superficial BCC and Bowen disease (photographed by Dr Ranthilaka R. Ranawaka). A 74-year-old man with oculocutaneous albinism had multiple BCCs (nodular and superficial variants) and Bowen disease on the trunk and both breasts. The reduction of the amount of melanin is responsible for an increased sensitivity to UV radiation, for loss of natural sun protection and for predisposition to skin cancers. In this patient, a few lesions were confirmed by excision, and since he had multiple lesions and these were recurring for the last 15 years, other suspicious lesions were treated with liquid nitrogen cryotherapy

Fig. 50.3 Superficial multifocal BCC at the back of the trunk in a 78-year-old woman. In this case, superficial spreading melanoma comes in differential diagnosis (photographed by Dr Ranthilaka R. Ranawaka)

colour the lesion is hyperpigmented and mimics pigmented BCC and seborrheic keratoses. The margin is well demarcated; the surface is usually flat but may become hyperkeratotic or crusted. Ulceration is usually a sign of the development of invasive carcinoma (Gupta et al. 2016).

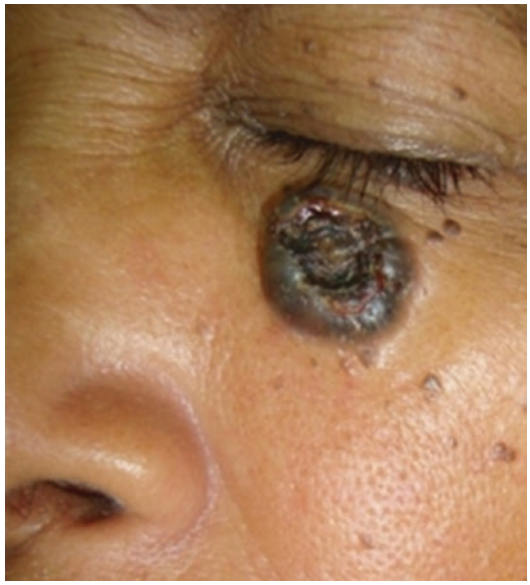

Fig. 50.4 Ulcerated BCC (rodent ulcer) in a 57-year-old woman. She also has multiple DPN and seborrhoeic keratoses (photographed by Dr Ranthilaka R. Ranawaka)

Diagnosis The most typical dermoscopic features of Bowen disease include glomerular vessels and scaly surface. But other skin lesions may present similar or identical structures in dermoscopic images leading to differential diagnosis dilemmas. Histopathological confirmation should be obtained prior to the treatment of suspected cases of Bowen disease in order to avoid a misdiagnosis (Wozniak-Rito and Rudnicka 2018).

Histopathology Full-thickness epidermal dysplasia and disordered differentiation with loss of epithelial polarity. Keratinocytes show variable pleomorphism, nuclear hyperchromasia and nuclear enlargement (atypical mitoses and giant cells) (Neagu et al. 2017).

Differential Diagnosis Superficial BCC, actinic keratoses, psoriasis, discoid dermatitis, lichen simplex, Bowenoid papulosis (Yun et al. 2013)

Treatments Curettage and cautery, cryotherapy, photodynamic therapy, topical imiquimod (Victoria-Martínez et al. 2017; Neagu et al. 2017) (Figs. 50.14, 50.15, 50.16, and 50.17)

Fig. 50.5 Multiple BCC in a 59-year-old woman. Note the pearly raised telangiectatic edge. She was treated with cryotherapy (photographed by Dr Ranthilaka R. Ranawaka)

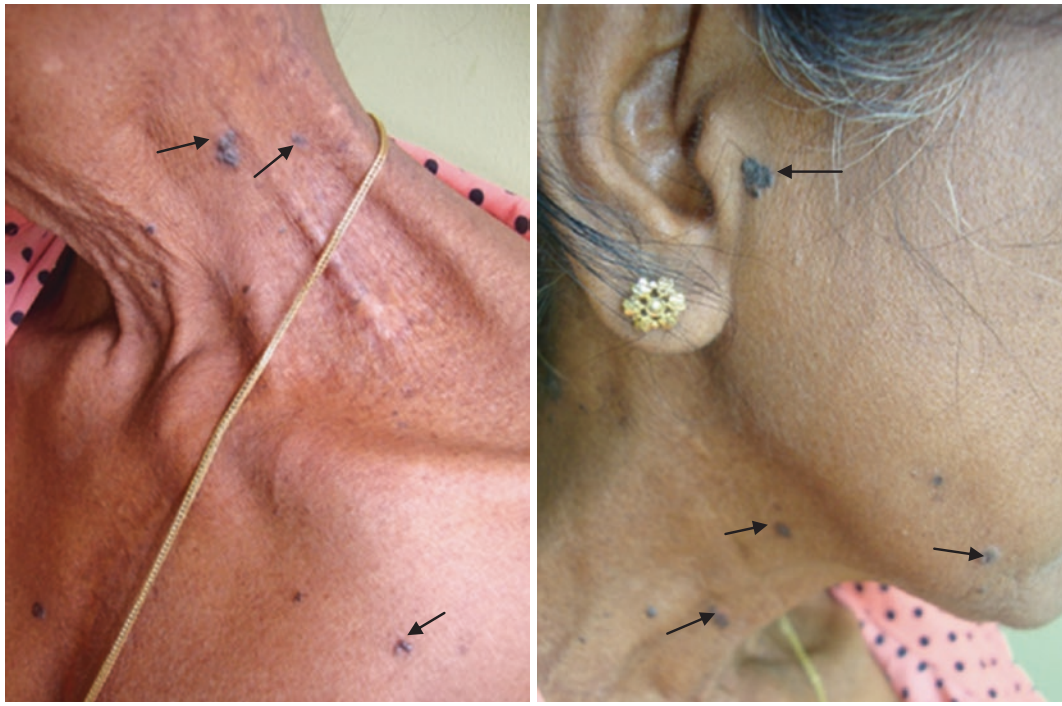

Fig. 50.6 Multiple BCC in a 68-year-old woman, who was treated with cryotherapy (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.7 Morphoeic BCC on the forehead in a 76-year-old woman (photographed by Dr Ranthilaka R. Ranawaka)

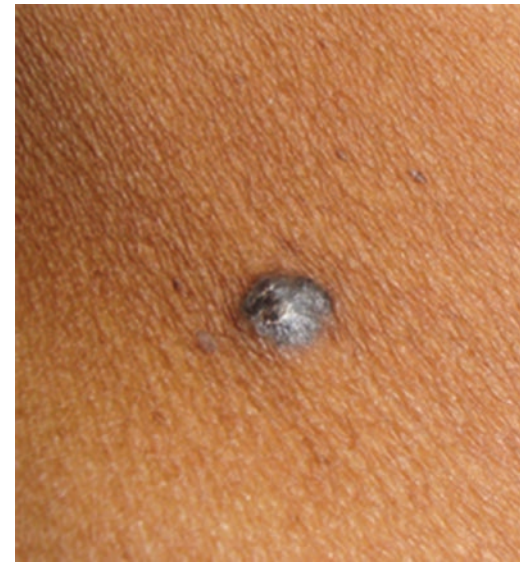

Fig. 50.8 Nodular BCC on the right flank in a 63-year-old man (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.9 Pigmented BCC in a 75-year-old woman. Note the pearly raised edge (photographed by Dr Kanishka de Silva)

Fig. 50.10 BCC in an 80-year-old man (photographed by Dr Kanishka de Silva)

50.4 Squamous Cell Carcinoma

Squamous cell carcinoma (SCC) is the second commonest skin cancer after BCC. The incidence of SCC increases with age. Squamous cell carcinoma is predominately a disease of white populations and is especially prevalent in this group in areas of high ambient sun exposure.

Risk Factors Fitzpatrick skin types I and II, particularly those with freckling and high UVR exposure, are most at risk (Gupta et al. 2016; Venables et al. 2019).

Fig. 50.11 BCC of the pinna in a 45-year-old woman (photographed by Dr Kanishka de Silva)

Fig. 50.12 BCC in an 83-year-old woman. BCC can mimic vascular tumours. This lesion had been there for many years as a small erythematous papule, recent rapid enlargement and bleeding brought them to seek treatments (photographed by Dr Ranthilaka R. Ranawaka)

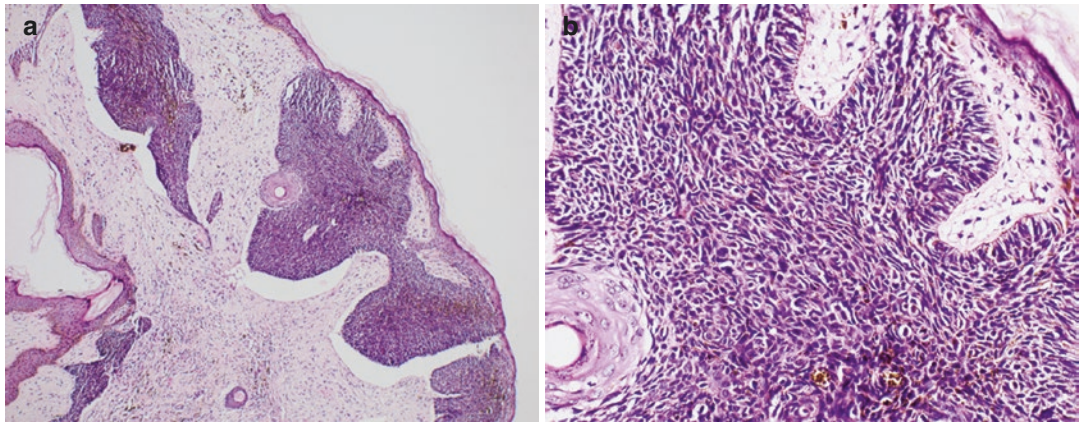

Fig. 50.13 (**a**) BCC histopathology H&E ×100. Proliferation of atypical basal cells noted together with retraction artifact. (**b**) BCC histopathology H&E ×400. The basal cells are atypical, focally pigmented with scattered mitoses (photographed by Dr Priyanka H. Abeygunasekara)

Fig. 50.14 Bowen disease in a 72-year-old Sri Lankan albino; small, red and slightly scaly area, which is symptomless and gradually enlarges in an irregular fashion. This man had multiple skin cancers (commonly BCC, Fig. 50.2) over more than 40 years (photographed by Dr Ranthilaka R. Ranawaka)

Factors implicated in the pathogenesis of SCC in pigmented skin are trauma, albinism, burn scars, ionizing radiation, chronic inflammation and chronic discoid lupus erythematosus.

Treatments Surgical excision and Mohs micrographic surgery produce excellent cure rates and spare the maximal amount of tissue. Other modalities include electrodessication and curettage, cryosurgery, radiotherapy, topical medications, photodynamic therapy and systemic therapy (Kallini et al. 2015, Stratigos et al. 2015) (Figs. 50.18, 50.19, 50.20, 50.21, 50.22, 50.23, 50.24, 50.25, 50.26, 50.27, and 50.28).

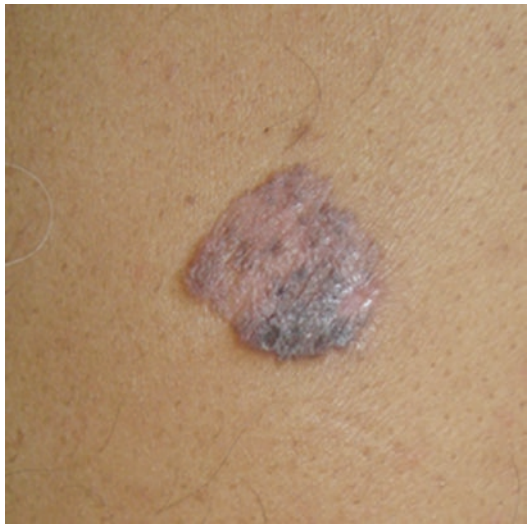

Fig. 50.15 Bowen disease in a 65-year-old man who had normal brown skin. Unlike in white or albino skin, in pigmented skin, these lesions are pigmented. Differential diagnoses are pigmented BCC and seborrhoeic keratoses which are more common in pigmented skin (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.16 Bowen disease in an 83-year-old white French man who was living in Sri Lanka for more than 40 years. Note he has chronic sun damaged skin (photographed by Dr Ranthilaka R. Ranawaka)

50.5 Vulval Intraepithelial Neoplasia (VIN)

Introduction Common problem among women in their 40s. VIN should be considered a non-invasive premalignant condition that may progress to vulval SCC (Lewis 2016).

Clinical Presentation Present as variety of clinical manifestations, warty lesions, skin-coloured plaques, white or red plaques, polypoidal growths or non-healing ulcers

Histopathology Two-thirds to full-thickness loss of cellular stratification throughout the epidermis, with large hyperchromatic cells, dyskeratosis, multinucleated cells and numerous typical and atypical mitoses

Differential Diagnosis Condyloma, extramammary Paget disease, viral warts, seborrhoeic keratoses and erythematous lesions can resemble dermatoses.

Treatments Surgical excision is the treatment of choice in differentiated VIN (Raimond et al. 2019). Undifferentiated VIN responds to medical therapy such as topical imiquimod and 5-fluorouracil. Alternative therapeutic options for conservative treatment have been sought by patients to prevent disfigurement and to preserve sexual function (Grimes et al. 2016; Committee 2016).

Prevention HPV types 16 and 18 are strongly associated with undifferentiated VIN. HPV vaccines will have an impact on HPV-related VIN (Figs. 50.29 and 50.30).

50.6 Malignant Melanoma

Malignant melanomas are rare skin cancers in pigmented skin. There are two types which are commoner in dark skin population (Grob and Gaudy-Marqueste 2016).

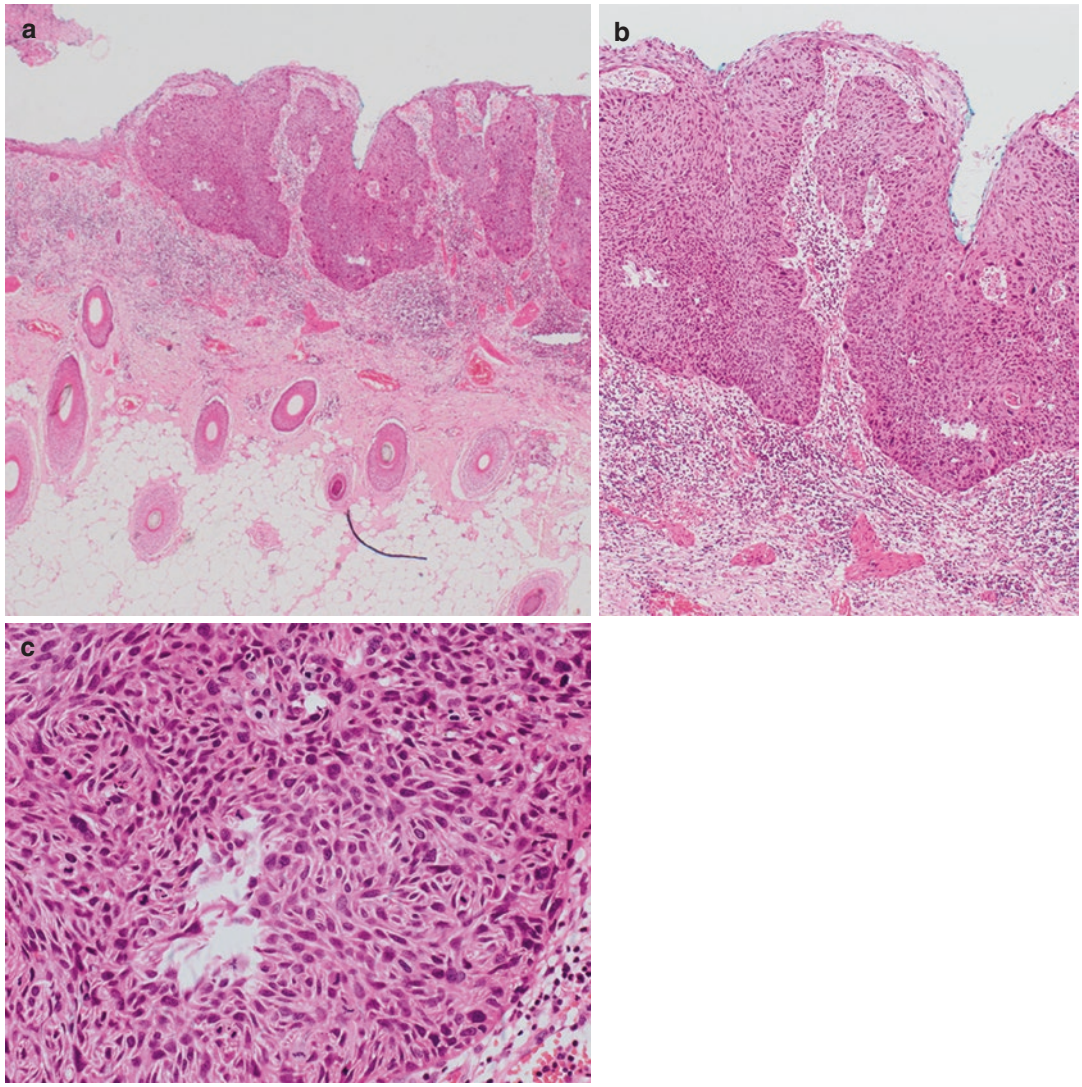

Fig. 50.17 (**a**) Histopathology of Bowen disease H&E × 40. Full-thickness epidermal dysplasia and disordered differentiation with loss of epithelial polarity. (**b**) Histopathology of Bowen disease H&E × 100. Full-thickness epidermal dysplasia and disordered differentiation. (**c**) Histopathology of Bowen disease H&E × 400. Keratinocytes show variable pleomorphism, nuclear hyperchromasia and nuclear enlargement (atypical mitoses and giant cells) (photographed by Dr Priyanka H. Abeygunasekara)

1. **Acral lentiginous melanoma ('a pigmented stain on the soles')**

   This is the commonest variety in pigmented skin: 2–10% of melanoma in white and 60–72% in black populations. The initial presentation is of a discrete light brown or black macule, often described as a 'dirty-like stain' (Wada et al. 2017; Goydos and Shoen 2016).

2. **Subungual melanoma ('pigmentation in the nail area')**

   2–3% of the melanomas in white-skinned but a higher proportion in dark-skinned populations. The first sign is a brown to black lin-

Fig. 50.18 Squamous cell carcinoma. A 44-year-old woman with oozing eczematous growth on the left middle finger, which was diagnosed SCC by histopathology. Differential diagnosis was acral malignant melanoma which is common in pigmented skin (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.19 Squamous cell carcinoma**.** A 64-year-old man with warty growth on prepuce skin for 3 months, confirmed moderately differentiated SCC by histopathology (photographed by Dr Ranthilaka R. Ranawaka)

ear discolouration in the nail bed hard to differentiate from benign melanonychia which are quite common in dark skin.

Other types of melanomas are rare in pigmented skin.

3. **Superficial spreading melanoma ('an atypical naevus').** Most cases (60–70% of melanomas) in white skin, Fitzpatrick type I–III.

Fig. 50.20 Squamous cell carcinoma. An 86-year-old woman came with this non-healing small 1 cm × 1.5 cm diameter ulcer on her left cheek for 6 months, confirmed moderately differentiated squamous cell carcinoma by histopathology (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.21 Squamous cell carcinoma. A 73-year-old woman came with a lump on the scalp for more than 2 months which she has noticed recent rapid enlargement. Histopathology confirmed invasive moderately differentiated keratinizing SCC (photographed by Dr Ranthilaka R. Ranawaka)

4. **Nodular melanoma ('a pigmented or red nodule').**
5. **Lentigo maligna melanoma ('a lentigo of the face in the elderly').**
6. **Pigmented lesion on the vulvae or in the mouth**
7. **Melanoma arising within congenital naevi:** Detection of a melanoma within giant congenital naevi is often difficult because of the frequent verrucous and lobulated surface of these naevi.

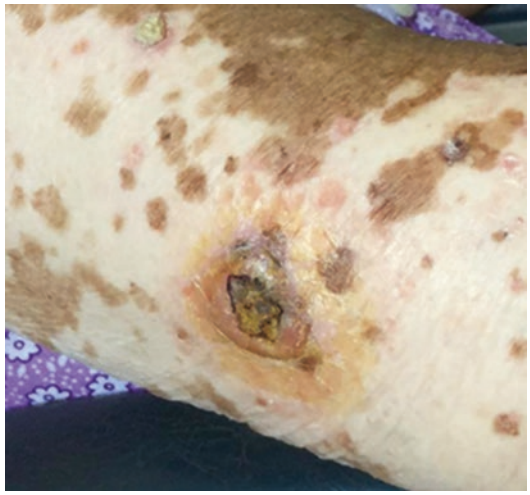

Fig. 50.22 SCC on vitiligo skin. A 70-year-old woman came with non-healing ulcer on the vitiligo skin (photographed by Dr Kanishka de Silva)

Fig. 50.23 Squamous cell carcinoma arising at the base of a cutaneous horn. A 57-year-old man had this warty growth on his flank for more than 1 year. He noticed recent rapid growth over 1 month. Histopathology confirmed cutaneous horn with focal invasive squamous cell carcinoma (photographed by Dr Ranthilaka R. Ranawaka)

8. **Ocular melanoma**
9. **Amelanotic melanoma:** Amelanotic melanoma can be easily missed by clinicians. They may mimic inflammatory lesions, angiomas, sarcoma, squamous cell carcinoma, basal cell

Fig. 50.24 An 80-year-old woman came with this recently enlarged warty growth on her right cheek. Histopathology confirmed warty growth with basal dysplasia and microinvasion (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.25 Large perianal wart. This mimics SCC clinically (photographed by Dr Kanishka de Silva)

Fig. 50.26 SCC arising on a burn scar (Marjolin's ulcer) in a 37-year-old man (photographed by Dr Kanishka de Silva)

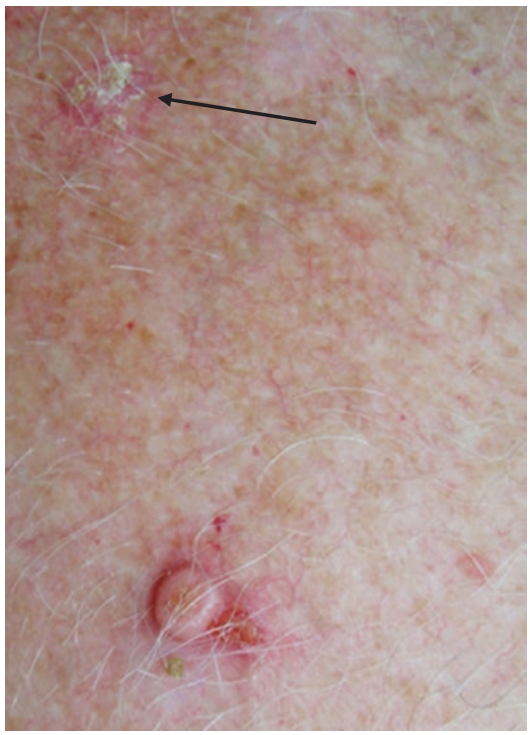

Fig. 50.27 SCC in a white French man living in Sri Lanka for more than 40 years. He came with erythematous nodule on the chest which appeared recently. Note solar keratosis on the trunk (arrow)

Fig. 50.28 The man in Fig. 50.27 had multiple suspicious lesions of SCC or Bowen disease. He was recommended topical imiquimod and close follow-up

carcinomas or others. They may be hardly visible, especially on the soles until a warty or nodular lesion reveals it, but often late (Figs. 50.31, 50.32, 50.33, 50.34, 50.35, 50.36, 50.37, 50.38, 50.39, 50.40, 50.41, 50.42, 50.43, and 50.44).

50.7 Paget Disease of the Breast

A rare intraepidermal adenocarcinoma of the nipple-areola complex, associated with an underlying breast cancer in approximately 90% of cases (Lopes Filho et al. 2015). It is rare before the fourth decade and is more prevalent in postmenopausal women (Calonje 2016).

Clinical Features Characterized by eczematous changes of the nipple-areola complex. At a later stage, it spread to involve skin of the breast and

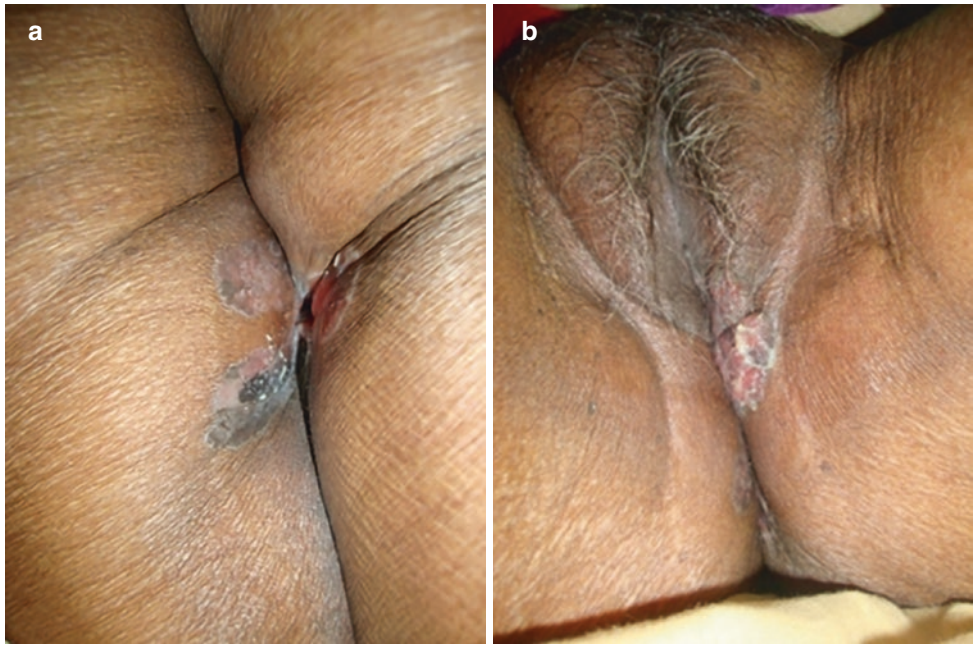

Fig. 50.29 Vulval intraepithelial neoplasia. A 76-year-old woman came with (**a**) a non-healing ulcer on the perianal skin and (**b**) a growth on the perineum. Biopsy from the lesion confirmed squamous vulval intraepithelial neoplasia (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.30 Vulval intraepithelial neoplasia**.** A 65-year-old woman came with recently appeared growth on labia minora. Skin biopsy confirmed high-grade squamous vulval intraepithelial neoplasia (VIN III) arising from labia minora (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.31 Subungual naevus. Pigmentation in single nail should arouse the suspicion of subungual melanoma unless proven otherwise. This was confirmed subungual naevus by biopsy (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.32 Recurrence of subungual melanoma (photographed by Dr Kanishka de Silva)

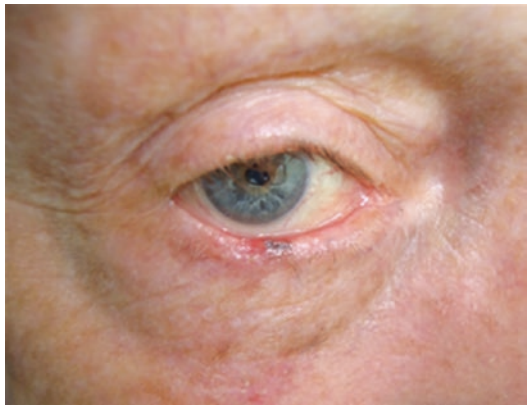

Fig. 50.33 Ocular melanoma in a 75-year-old white man (skin types I–II) who resides in Sri Lanka for 2 years. The most cases, 60–70% of melanomas, arise in white skin Fitzpatrick types I–III (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.34 Malignant melanoma in oral mucosa (photographed by Dr Kanishka de Silva)

appears as erythematous, moist or crusted lesion. Poor prognosis is associated with invasive disease and the presence of a palpable mass (Adams and Kanthan 2016).

Histopathology Epithelial cells with abundant basophilic or amphophilic, finely granular cytoplasm with a large, centrally situated nucleus, most abundant in the lower epidermal layers

Differential Diagnosis Nipple eczema, Bowen disease, SCC, melanoma, psoriasis, contact dermatitis, intraductal papilloma (Lopes Filho et al. 2015; Waldman et al. 2019)

Treatments Mammogram or ultrasound to establish deeper pathology in the underlying breast, surgery (Sandoval-Leon et al. 2013) (Figs. 50.45, 50.46, 50.47, and 50.48)

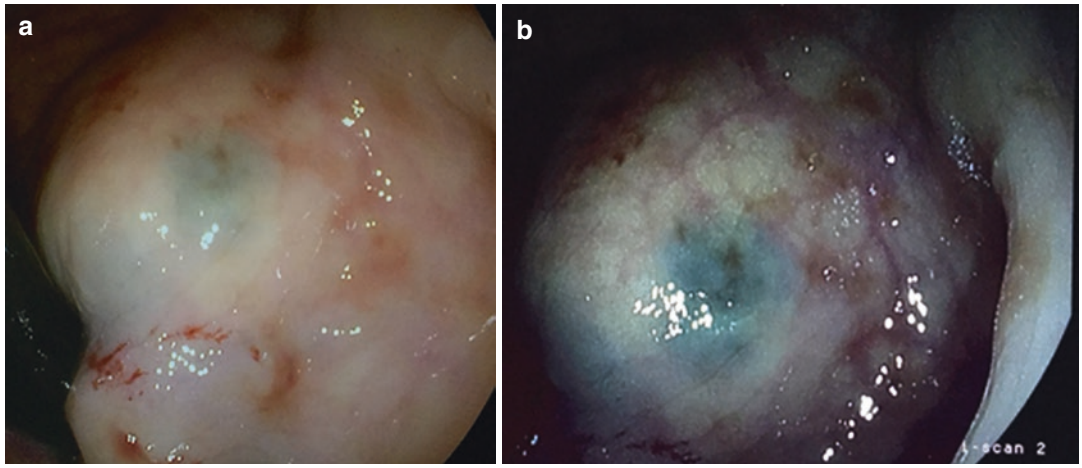

Fig. 50.35 (**a**, **b**) Malignant melanoma in anus colonoscopy with narrow-band imaging (photographed by Dr Kanishka de Silva)

Fig. 50.36 Giant congenital melanocytic naevi (CMN) risk of malignant transformation in CMN remains controversial and seems to depend on the size of the lesion. For large CMN (defined by a largest diameter >20 cm), lifetime risk of melanoma transformation has been estimated between 5 and 15% (photographed by Dr Ranthilaka R. Ranawaka)

50.8 Breast Carcinoma with Skin Infiltration

Introduction Breast carcinoma is the most common tumour to metastasize to the skin in women.

Clinical Presentation Commonly present as vegetative type, infiltrating with nipple retraction or papular nodular lesions with skin changes. Rare presentations are dermal infiltration causing sclerosis (carcinoma en cuirasse), vascular changes (carcinoma telangiectodes), *peau d'orange* appearance (orange peel) and more rarely carcinoma erysipeloides pattern (inflammatory metastatic carcinoma) (Chisti et al. 2013; Emtestam and Sartorius 2016; Ranawaka et al. 2020).

Histopathology Invasion of the dermis and epidermis by malignant cells similar to that of the primary tumour is seen (Emtestam and Sartorius 2016).

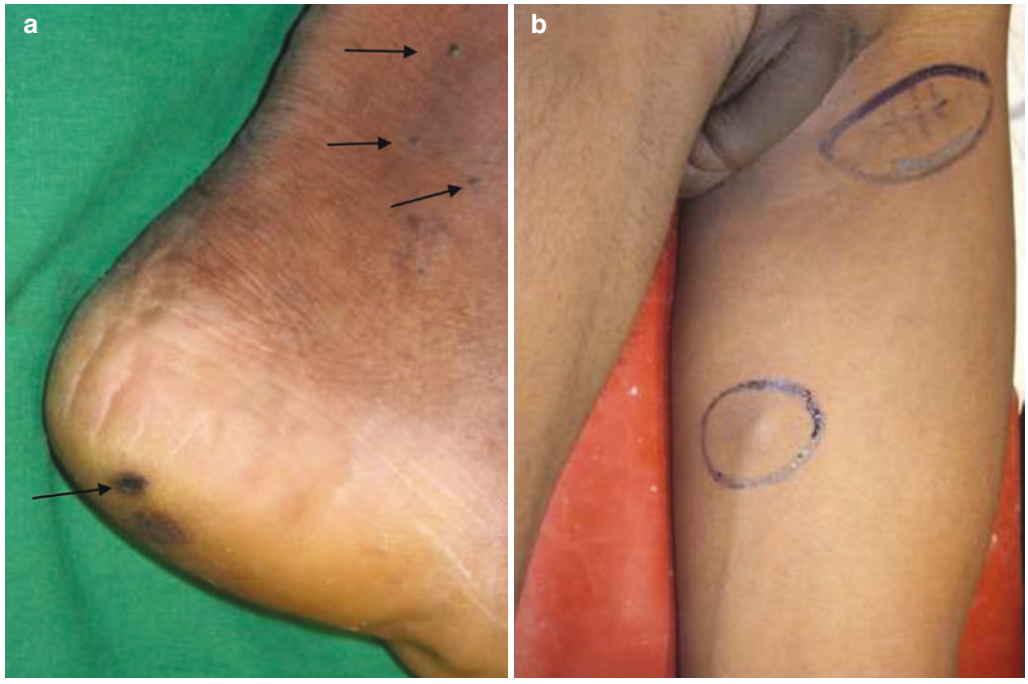

Fig. 50.37 Acral lentiginous melanoma with (**a**) transit nodules and (**b**) inguinal lymph node deposits (photographed by Dr Kanishka de Silva)

Fig. 50.38 (**a**) Acral lentiginous melanoma at the heel (**b**) excision site repaired with a plantar flap. (**c**) A few months later (photographed by Dr Kanishka de Silva)

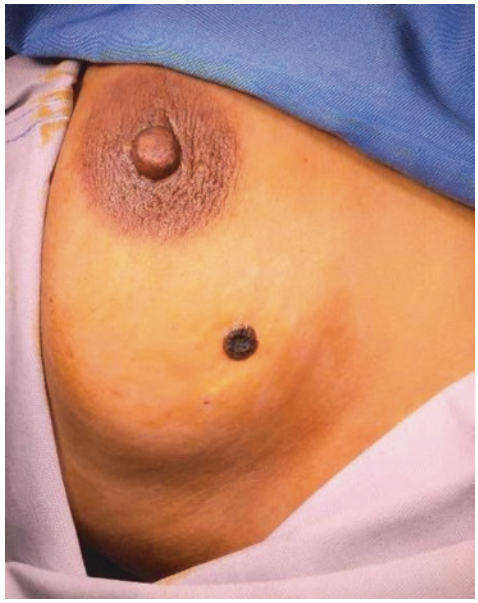

Fig. 50.39 Melanoma arising on the breast skin (photographed by Dr Kanishka de Silva)

Fig. 50.40 Recurrence of subungual melanoma with transit nodules (photographed by Dr Kanishka de Silva)

Fig. 50.41 Acral lentiginous melanoma with satellite and transit nodules (photographed by Dr Kanishka de Silva)

Differential Diagnosis Early inflammatory phase of postirradiation morphoea, erysipelas, angiosarcoma

Investigations Emerging techniques using the analysis of circulating tumour cells show promising results in predicting and identifying the early stages of breast cancer metastasis in patients (Hali et al. 2011; Kurul et al. 2005).

Treatments No cure for metastatic breast cancer yet exists, and it is associated with a poor prognosis. The 5-year survival rate is 26%. Radical mastectomy with complete axillary nodal dissection followed by complementary therapies, chemother-

Fig. 50.42 Large naevus on the sole (photographed by Dr Kanishka de Silva)

apy or radiotherapy is indicated in many patients (Peart 2017; Scully et al. 2012) (Figs. 50.49, 50.50, 50.51, 50.52, 50.53, and 50.54).

50.9 Internal Malignancies with Skin Infiltrations (Figs. 50.55, 50.56, and 50.57)

50.10 Radiation Dermatitis

Patients undergoing radiation often experience acute and/or chronic skin changes that can be detrimental to their quality of life (Ramirez et al. 2019). Many topical agents and specialized wound dressings are being used for the prevention and management of radiation-induced skin changes (Hegedus et al. 2017).

Clinical Features Acute radiation dermatitis occurs within 90 days: erythema, oedema, desquamation, ulceration, skin necrosis and mucositis if mucosal surface is involved.

Chronic changes may occur even up to 10 years: telangiectasia, hypopigmentation, atrophy and alopecia.

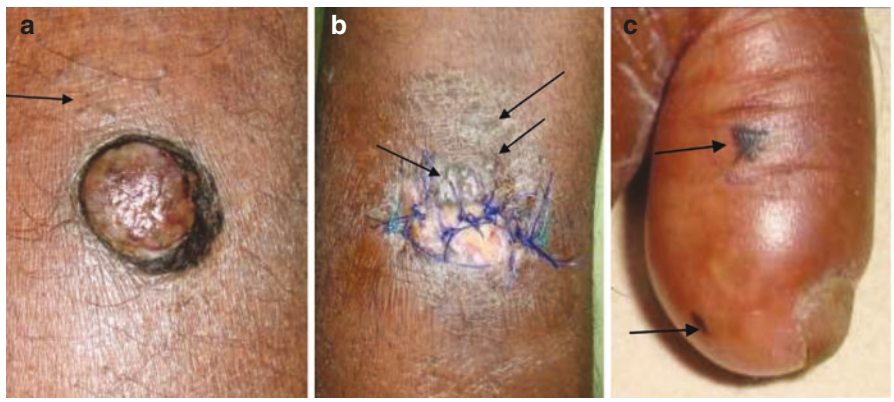

Fig. 50.43 Malignant melanoma in a 73-year-old man. (**a**) A man came with a recent onset blackish 2 × 2 cm nodule just below the left popliteal fossa. This was diagnosed malignant melanoma by histopathology. Cutaneous locoregional metastasis was visible as 1 mm diameter papules around the lump (arrow). (**b**) One week after the total excision of the skin lump, locoregional metastasis was marked and was clearly visible. (**c**) Careful, thorough examination noticed small two 1–2 mm diameter pigmented lesions on his left fifth toe. This may be the primary site of his melanoma (photographed by Dr Ranthilaka R. Ranawaka)

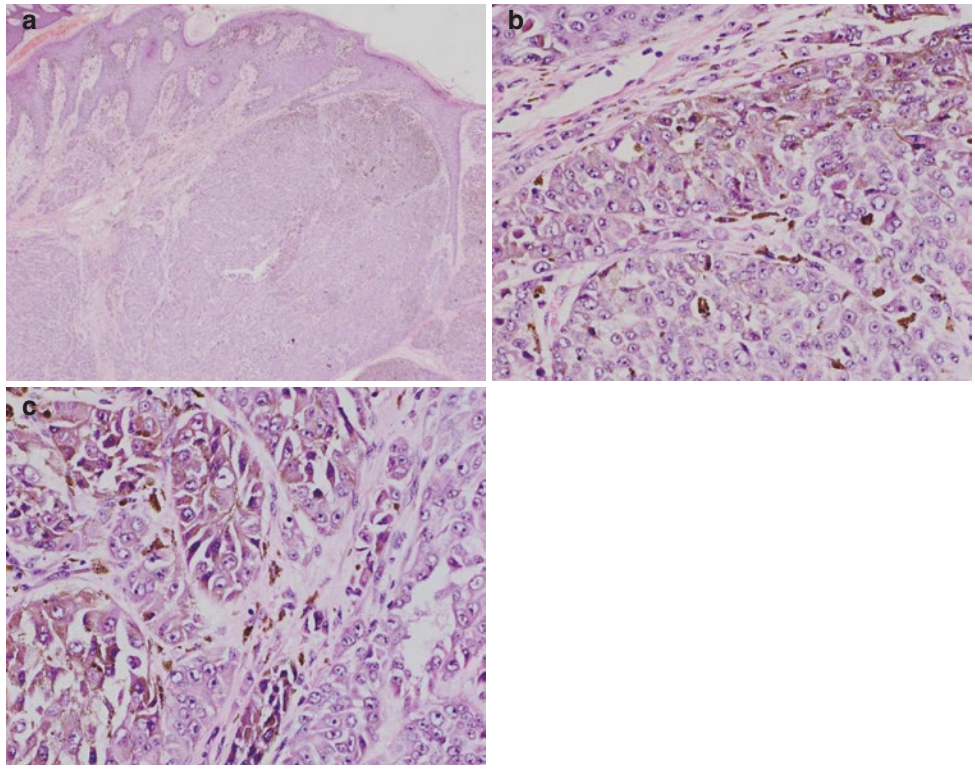

Fig. 50.44 (**a**) Nodular melanoma histopathology H&E ×100. Nodular growth of pigmented cells in the dermis adjacent to epidermis. Melanocytes in the basal epidermis are atypical. (**b**) Nodular melanoma histopathology H&E X400. Malignant melanocytes are in nests and have prominent nuclei and have melanin pigment in cytoplasm. (**c**) Nodular melanoma histopathology H&E ×400 (photographed by Dr Priyanka H. Abeygunasekara)

Fig. 50.45 Paget disease of the breast (photographed by Dr Kanishka de Silva). A 64-year-old woman came with eczematous lesion on the nipple for 8 months. She had been treated by several primary care doctors with topical steroids mistaken for nipple eczema

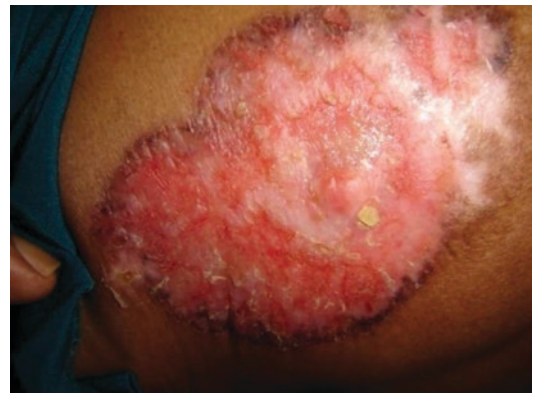

Fig. 50.46 Latter stage of Paget disease of the breast showing total destruction of the nipple and erythematous moist lesion extending to the skin of the breast (photographed by Dr Ranthilaka R. Ranawaka)

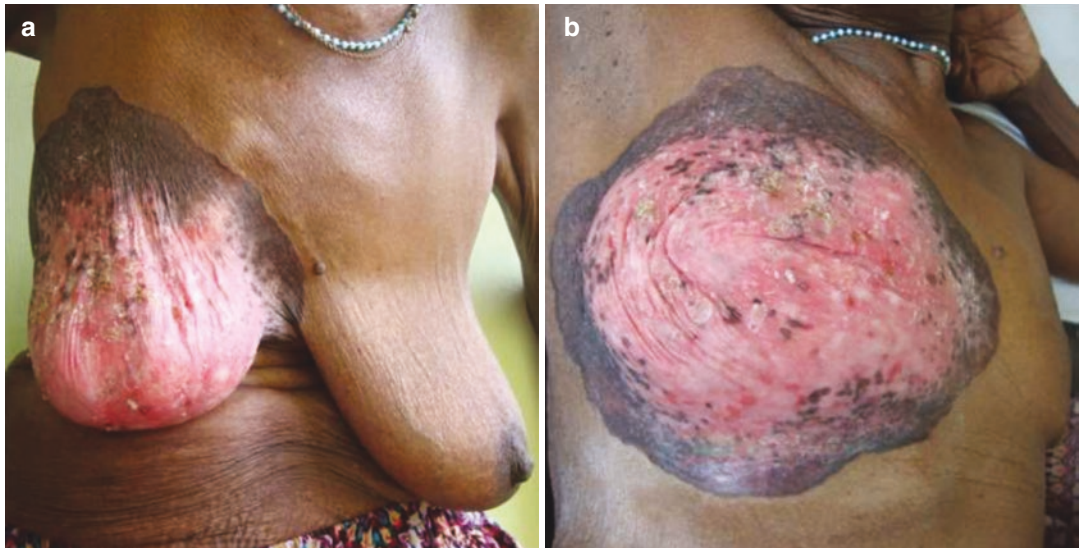

Fig. 50.47 (**a**) Paget disease of the breast. A 70-year-old woman came with this itchy lesion on the breast for more than 10 years. Note both nipple and areola are destroyed. (**b**) Paget disease of the breast (photographed by Dr Ranthilaka R. Ranawaka)

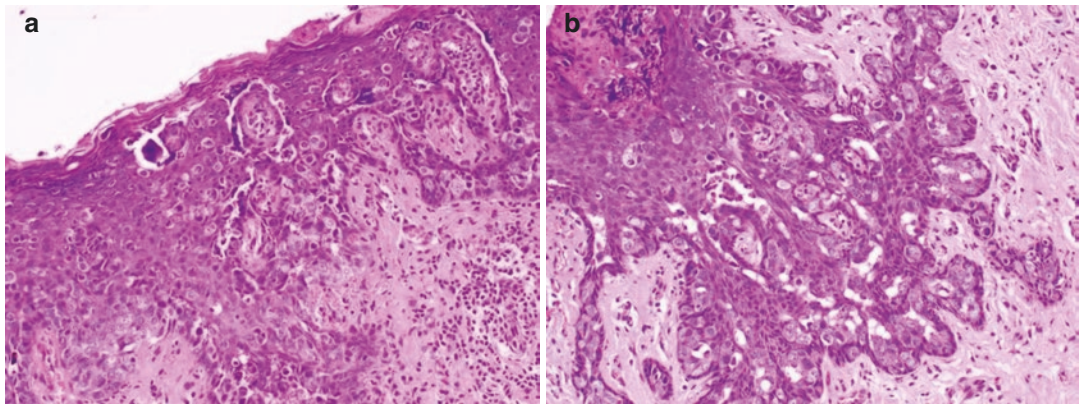

Fig. 50.48 (**a**) The pathologic view of Paget disease H&E ×100. (**b**) The pathologic view of Paget's disease H&E ×400. Epithelial cells with abundant basophilic or amphophilic, finely granular cytoplasm with a large, centrally situated nucleus, most abundant in the lower epidermal layers (photographed by Dr Priyanka H. Abeygunasekara)

Differential Diagnosis Blistering disorders, infection, contact dermatitis, morphoea

Prevention Pharmacological interventions used to prevent radiation dermatitis are trolamine, aloe vera, allantoin, Lianbai liquid, sucralfate, Na sucrose octasulphate, olive oil, hyaluronic acid and dexpanthenol. Non-pharmacological topical controls are usual care/institution routine, aqueous cream, mild soap, water thermal gel, placebo and no intervention. There was no strong evidence that indicates differences between the two methods among patients with head and neck cancer undergoing radiotherapy (Ferreira et al. 2017; Fearfield and Natkunarajah 2016).

Treatments No single therapeutic option has been found to be consistently effective. Acute

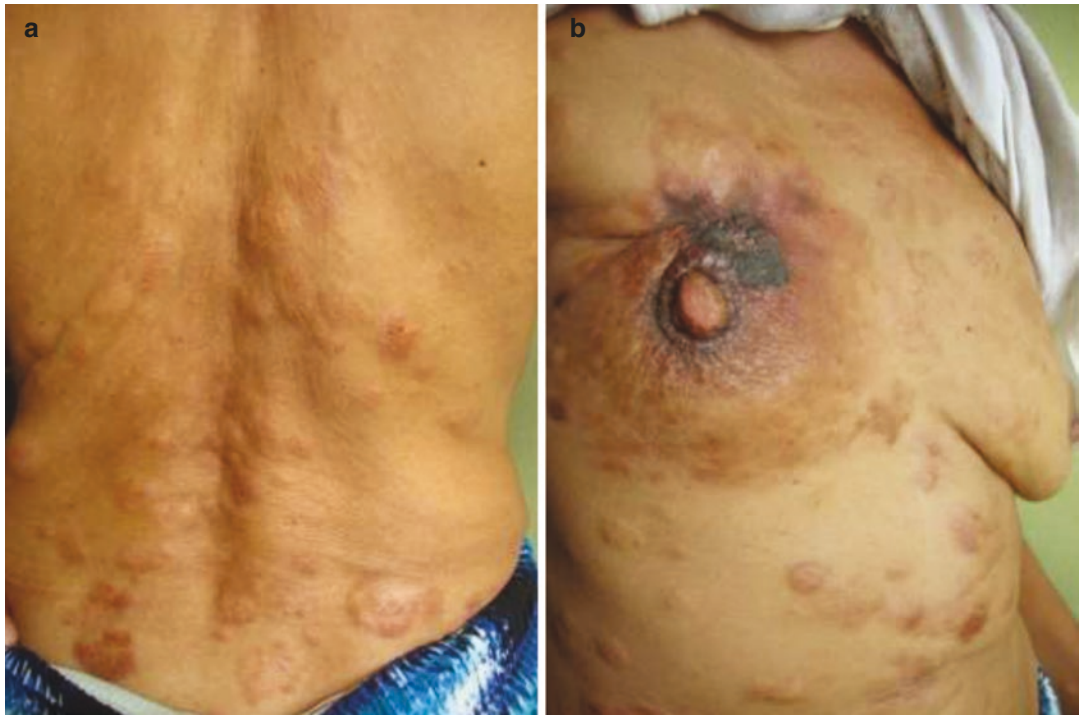

Fig. 50.49 A 49 year-old woman with breast carcinoma and skin infiltrations. (**a**) She was referred to us from the surgical department with asymptomatic nodules and plaques on anterior and posterior trunk for more than 3 months. The nodules were woody hard, attached to overlying skin and deep tissues. Histopathology showed increased collagen deposition in dermis with few lymphocytic infiltrations and loss of rete ridges. (**b**) On examination, right breast carcinoma detected which she had concealed and not seek treatments before (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.50 Above patient's chest X-ray showing numerous lytic lesions (photographed by Dr Ranthilaka R. Ranawaka)

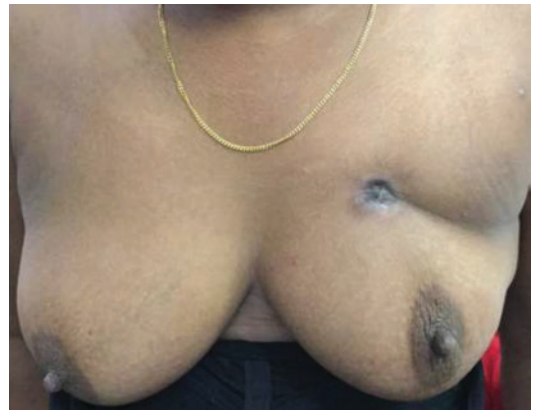

Fig. 50.51 Direct skin infiltration from underlying breast carcinoma (photographed by Dr Kanishka de Silva)

Fig. 50.52 Peau d'orange of the breast (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.53 Dimpling of the skin due to skin infiltration (photographed by Dr Kanishka de Silva)

Fig. 50.54 Peau d'orange and recent onset nipple inversion in a woman with underlying breast carcinoma (photographed by Dr Kanishka de Silva)

Fig. 50.55 Angiosarcoma and malignant cutaneous adnexal tumour. An 89-year-old woman had an erythematous plaque which she did not seek treatments for more than 2 years. Within 2 months, relatives noticed a lump arising on top of the plaque. Skin biopsy performed from the plaque, and the lump showed mixed histopathology of angiosarcoma and malignant cutaneous adnexal tumour (photographed by Dr Ranthilaka R. Ranawaka)

radiation dermatitis is managed symptomatically, including antiseptic creams (e.g. silver sulfadiazine), hydrophilic dressings and moderate or strong topical steroids (Haruna et al. 2017; Sekiguchi et al. 2015) (Figs. 50.58, 50.59, and 50.60).

Fig. 50.56 Skin deposits of non-Hodgkin lymphoma. A 68-year-old woman who was diagnosed as CD 30-positive non-Hodgkin lymphoma was referred from oncology department when she developed these skin lumps 1 week ago. Histopathology confirmed skin infiltration of the same disease. She passed away 1 week later (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.57 Malignant adnexal tumour with sebaceous differentiation. A 71-year-old man came with easily bleeding lump on the nasolabial fold for 6 months. Histopathology confirmed malignant adnexal tumour with sebaceous differentiation (photographed by Dr Ranthilaka R. Ranawaka)

Fig. 50.58 Acute radiation dermatitis in a 45-year-old man with carcinoma of the neck: erythema, moist desquamation, bleeding with minor trauma, skin necrosis and ulceration. These changes are more pronounced in skin folds (photographed by Dr Ranthilaka R. Ranawaka)

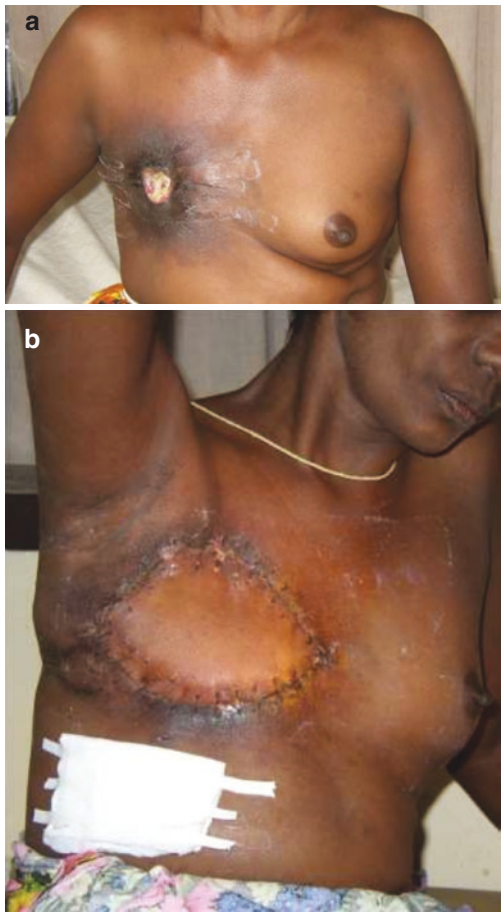

Fig. 50.59 (**a**) Acute radiation dermatitis: dry desquamation, pigmentation, skin necrosis and ulceration. (**b**) Acute radiation dermatitis: skin burn and lateral dorsi flap repair (photographed by Dr Kanishka de Silva)

Fig. 50.60 Chronic radiation dermatitis: dry desquamation and pigmentation (photographed by Dr Randima Nanayakkara, Consultant Oncological Surgeon, Teaching Hospital Anuradhapura, Sri Lanka)

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