CASE REPORT

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# Pigmented Basal Cell Carcinoma Over Trunk: An Unusual Location

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## ABSTRACT

Basal cell carcinoma (BCC) was first described by Jacob in 1827. It is also known as "ulcus rodens". It is the most common type of skin cancer and accounts for approximately 80% of all the non-melanoma skin cancers. There are no precursor lesions described for BCC. In 80-85% of the cases, BCC most frequently develops over head and neck. Rarely, basal cell carcinoma has been reported over unusual non-sun-exposed locations such as axilla, groins, umbilicus, trunk, palm and soles. Only 10% of BCC are seen over trunk. BCC is rarely reported in childhood. We report a case of pigmented basal cell carcinoma in a 22-year-old female located on trunk, highlighting its dermoscopic, histopathological and immunohistochemistry findings.

**Keywords:** Pigmented Basal Cell Carcinoma, Dermoscopy, Truncal Basal Cell Carcinoma

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## INTRODUCTION

Basal cell carcinoma (BCC) also known as "ulcus rodens", was first described by Jacob in 1827.[1] BCC nomenclature was proposed in 1903 by Krompecher.[1] It is the most common type of skin cancer, and accounts for approximately 80% of all the non-melanoma skin cancers.[2] Clinically, it is of five types: nodular-ulcerative, pigmented, superficial, sclerodermiform or fibrosing and fibroepithelioma. Ultraviolet radiation exposure is the major risk factor. Other principal risk factors associated are fair skin, advancing age, male gender, family history of skin cancer, freckles in childhood, blue eyes and red hair, chronic inflammation and immunosuppression.[1-2] There are no precursor lesions described for BCC. Although majority of the cases of BCC occur in 50-80 years of age, the incidence in younger individuals is also on rise. BCC is rarely reported among children.[2]

In 80-85% of the cases, BCC frequently develops over head and neck. Rarely, BCC has been reported over unusual locations such as- axilla, groins, umbilicus, trunk, palm and soles. Only ten percent of cases with BCC are reported over trunk.[2]

BCC is rarely diagnosed in females in their childhood. Also, BCC is usually seen over sun exposed sites. Sites such as trunk is very ususual for BCC to occur. Dermoscopy and immunohistochemistry findings of BCC are not yet reported. So, we report a case of pigmented BCC in a 22-year-old female located on trunk, highlighting its dermoscopic, histopathological and immunohistochemistry findings.

## CASE REPORT

A 22-year-old female presented with asymptomatic brown colored lesion over lower abdomen for 6 months, which slowly increased in size. Patient denied history of any birth mark on trunk. There is no history of any prior trauma, radiotherapy, chemotherapy or arsenic exposure. There was no history of excessive sun exposure, patient had indoor occupation. There was no similar personal or family history.

On examination, there was a well-defined purplish-brown plaque with raised and irregular margins, measuring 2.5x2

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**Figure 1. Well-defined purplish-brown plaque with raised and irregular margins over right side of lower abdomen**

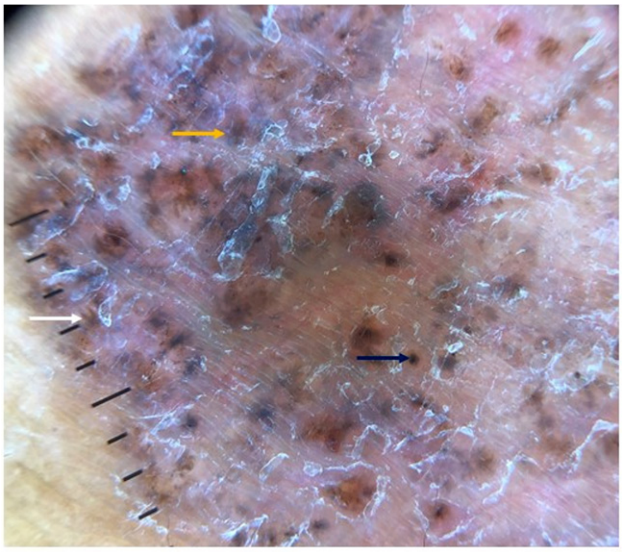

**Figure 2. Non-contact dermoscopy under polarised mode using DermLite DL4 showing multiple blue-gray globules (orange arrow), specks of brown - gray pigment (black arrow) with spoke-wheel areas (white arrow) on periphery of the lesion.**

cm over the right side of lower abdomen, 3cm above the waist line Surface of the plaque was rough with mild superficial whitish scales **[Figure 1].** Rest of the cutaneous and systemic examination was normal. All routine investigations were found to be normal.

Non-contact dermoscopy of skin was done using DermLite DL4, under polarised mode which revealed multiple blue-gray globules, large blue-gray ovoid nests and specks of brown - gray pigment. Spoke-wheel areas and structureless leaf-like areas on the periphery of the lesion were seen. **[Figure 2].** Based on these dermoscopic findings, provisional clinical diagnosis of BCC was kept.

Wide surgical excision with one-centimeter margin was done under local anesthesia. Tumor tissue sections were sent for histopathology which revealed the presence of nests of tumor cells in dermis, containing basaloid hyperchromatic nuclei with scanty cytoplasm. Palisading basal nuclei along with retraction clefts around the nests were seen. The tumor was locally attached to overlying epidermis and pigment incontinence was noted **[Figures 3,4]**. Immunohistochemistry showed lesional cells with positive results for Ber EP4, confirming the diagnosis of pigmented basal cell carcinoma **[Figure -5]**. Patient was on regular follow-up and no recurrence was noted till date.

## DISCUSSION

BCC is more often seen in Caucasians than blacks and Asian skin.[2] It is rarer in dark skin because of the inherent photoprotection from melanin and melanosomal dispersion.[2] In 80-85% of the cases, it is noted over head and neck.[3,4] It may occasionally develop on the non-sun-exposed sites. In Caucasians and blacks, 10% to 15% of BCCs arise on the trunk whereas a slightly lower percentage is observed in Asian Indians.[5] The habit of sunbathing is associated with a five-fold increased risk of development of BCC over the trunk.

Truncal BCC is more often reported in men than women (1.5-2:1), which probably is due to increased sun-exposure.[6,7] Neale et al. reported that BCCs of the trunk were more commonly seen in males. They also observed at a younger age than BCCs over the head.[8]

Pigmented BCC is seen in more than 50% of all BCCs in blacks, Hispanics, and Japanese, whereas only 6 % of BCCs in Caucasians are pigmented. The presence of pigmentation in BCC makes it quite difficult to differentiate from other lesions, such as seborrheic keratoses, epidermal inclusion cysts, nevocellular nevi, blue nevi, Bowen disease, lentigines, or malignant melanoma.[2]

Menzies et al. described dermoscopic features of BCC in a detailed manner.[9] On dermoscopy, pigmented BCCs are always asymmetric in pattern and are relatively hypomelanotic lesions. Approximately, half of the tumor area is pigmented. Because of their irregularity, the differential diagnosis of pigmented BCCs includes both invasive melanoma and benign pigmented lesions. Asymmetric pigmentation on

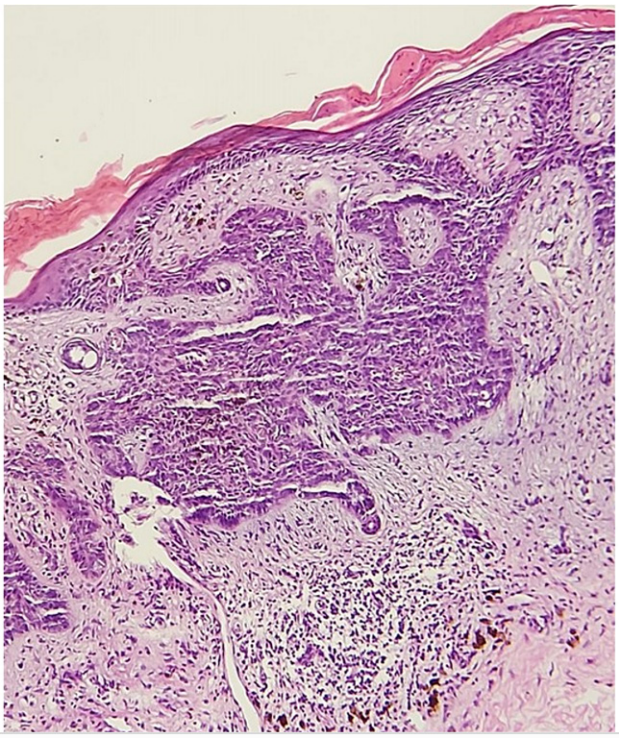

**Figure 3. Histopathology showing presence of nests of tumor cells in dermis, which is attached to the overlying epidermis with palisading basal nuclei and retraction clefts around the nests. (H & E, 100 X)**

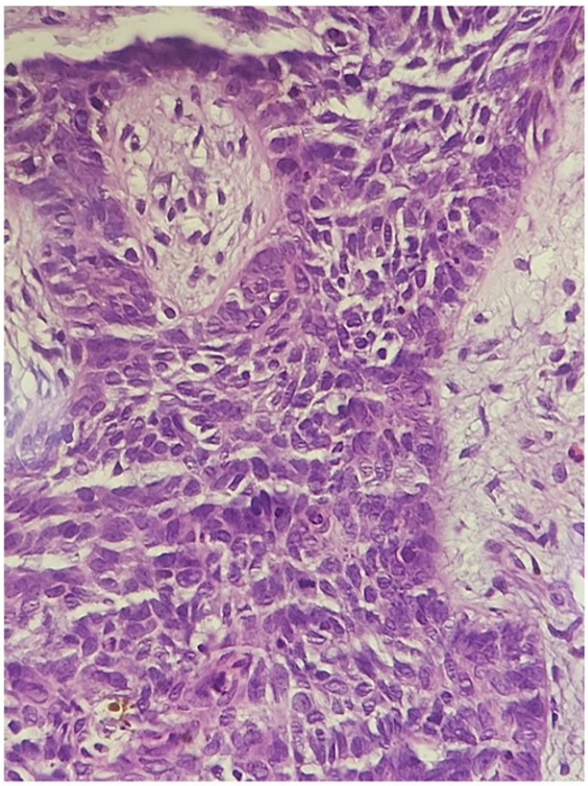

**Figure 4. Photomicrograph showing tumor cells in the dermis in palisading arrangement. (H& E, 400 X)**

dermoscopy has overall diagnostic sensitivity of 93% and specificity of 89%. Similar findings of asymmetric pigmentation were seen in our case. This feature was also observed in our case.

Large, grey-blue ovoid nests, multiple grey-blue globules are seen, which have to be distinguished from smaller and "pepperlike" dots. Maple leaf-like areas, are highly specific (100%) of BCC. They differ from pseudopods (found in melanoma) because maple leaf-like areas are discrete pigment nests (islands) never arising from a pigment network and usually not arising from an adjacent confluent, pigmented area. Spoke wheel areas are highly specific (100%) feature of BCCs, but least frequently noted. These are seen as radial projections, usually tan but sometimes blue or grey, meeting at an often-darker central axis. Arborizing tree-like telangiectasis and ulceration are other dermoscopic features seen in BCC.[9] In our case, dermoscopic findings observed were multiple blue-gray globules, large blue-gray ovoid nests and specks of brown - gray pigment with spoke-wheel areas with structureless leaf-like areas on the periphery of the lesion.

We correlated histopathological findings with dermoscopic findings. Large blue ovoid nests, leaf-like areas were seen due to nodules of pigment basal cell tumor in dermis; spoke-wheel areas, are formed by nests & proliferation of pigmented basal cell carcinoma cells; specks of grey dots were due to melanin pigment within the papillary dermis, in small nests of melanocytes or melanophages. Brown dots reflect either small nests of melanocytes in basal epidermis

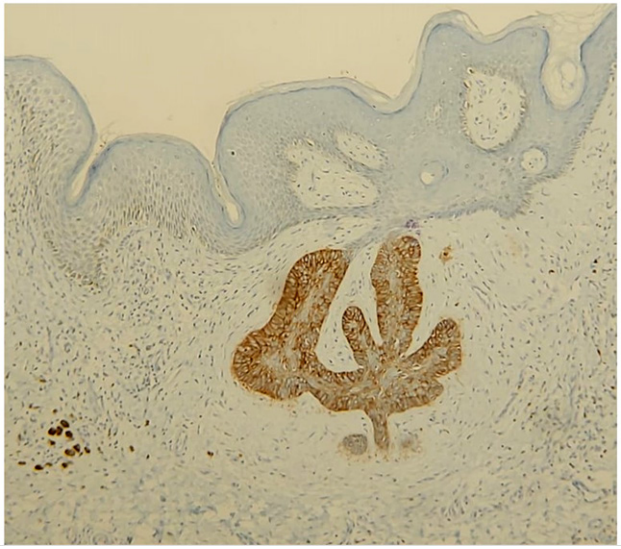

**Figure 5. Immunohistochemistry showing lesional cells with positive staining for Ber EP4**

or focal pigmented keratinocytic proliferation. Dermoscopy is a non-invasive method which aids in initial diagnosis of cutaneous malignancies.

## CONCLUSION

BCC may rarely be located over unusual covered sites such as trunk. This case is presented in view of its unusual location in a young Asian female over a sun protected site. Classical dermoscopic features of pigmented BCC observed in this case are highlighted.

## END NOTE

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**Conflict of Interest:** None declared

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### Declaration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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