



ORIGINAL RESEARCH PAPER

Dermatology

DERMOSCOPY- A NOVEL TECHNIQUE IN THE MANAGEMENT OF BASAL CELL CARCINOMA

KEY WORDS: BCC, dermoscopy

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ABSTRACT Basal cell carcinoma (BCC) is the commonest malignant tumour of skin. Present study was done to assess the utility of Dermoscopy in management of BCC. BCC is common in males after the age of 60 years where co-morbidity may be associated. Surgery is the gold standard for their treatment of BCC in the histopathology proved cases. Dermoscopy is a good method to assess the lesion and check their persistence of lesion and after the treatment irrespective of mode of therapy chosen.

Background: BCC is commonest skin cancer which is common in middle and elderly age in which other comorbid conditions co-exist. Histopathology is the gold standard procedure for the diagnosis and assessment of recurrence of BCC. Most of these patients are reluctant for the surgical procedure and it carries the risk of complications.^[1] In this condition with advancement of non-invasive dermoscopy, it may prove to be a better technique for the diagnosis and assessment of clearance as well as recurrence of the disease after any modality of therapeutic procedure. Menzies et al^[2]

described dermoscopic algorithm for differentiation of BCC from melanocytic tumors with use of dermoscopy. Diagnosis of BCC can be confirmed when two prerequisites are present; the absence of pigment network and presence of one of six BCC related criteria which includes ulceration, large blue-gray ovoid nests, multiple blue-gray dots/globules, maple leaf-like areas, spoke wheel areas and arborizing vessels.[figure-1]

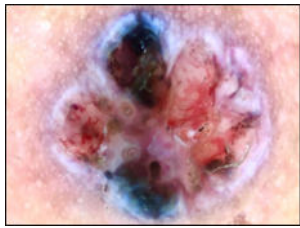


Figure:1 Dermoscopy of BCC showing Arborizing blood vessels and Blue grey ovoid nests seen. (polarizing mode, x10)

Dermoscopic criteria of Bcc: Arborizing vessels, Superficial fine telangiectasias, Blue-gray ovoid nests, Multiple blue-gray dots & globules, In-focus dots, Maple leaf-like areas, Spoke wheel areas, Concentric structures, Ulceration, Multiple small erosions, Shiny white/red structureless areas, Short white streaks (chrysalis).^[3,4]

Aims and objective: This study was done specially to assess the use and benefit of Dermoscopy in the elderly patients

where any sort of surgical procedure carries risk of complications.

Approach: This study was done in a tertiary care center in the department of Skin and VD, as OPD study in 12 patients of facial BCC.

Material and methods : This was a prospective single centered study done in 12 patients of facial BCC. Written informed consent was obtained. Study was done over a period of 18 months (December 2017 to May 2019) in a tertiary care center. This was self financed study. All 12 patient were diagnosed by gold standard of skin biopsy which showed small round cells with peripheral palisading which was restricted to papillary dermis. (X40) [Figure:2] and assessed by dermoscopy.

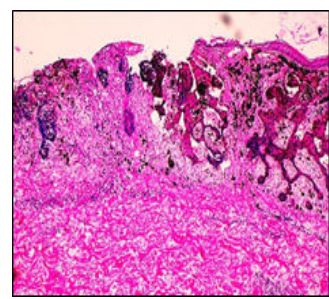


Figure:2 The tumor islands are made up of small round cells that show peripheral palisading and are restricted to the papillary dermis. (X40)

They were treated by cryotherapy over the lesion two weeks apart over a period of two months as OPD patients. All patients were assessed by dermoscope at the beginning before biopsy and then again by 4th generation DERMALITE dermoscope. All patients were treated by cryotherapy. Post procedure every patient was reassessed by dermoscope on each follow up visit (baseline, 2nd weeks, 4th weeks, 6th week and 8th week) and pictures were taken till last follow up at 3 months. 2 patients showed signs of recurrence on dermoscopy.

Results:

In our study of all 12 patients we could diagnose basal cell carcinoma and follow patients to look for recurrence which was clinically, symptomatically and visibly not there as confirmed by dermoscopy. All the patients were more than 60 years of age. Out of the 12 patients, 9 were male and 3 were female. Looking at the success of procedure we assume that this procedure can be used as OPD procedure for the management of BCC. [Table-1]

Table-1: Dermoscopic characteristic of 12 patients at baseline (pre cryotherapy) and at 12th week Post cryotherapy.

Dermoscopic characteristic	Pre cryotherapy at baseline (n =12)	Post cryotherapy at 12th week (n=12)
Arborizing blood vessels	12	0
Blue grey ovoid nests, globules	12	0
Short fine telangiectasias	12	0
Crystalline structure/white streak	12	2
Multiple small erosions	9	0
Ulceration	3	0

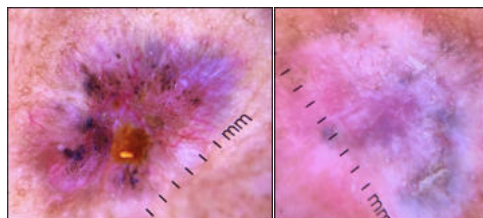


Figure:3

Figure:4

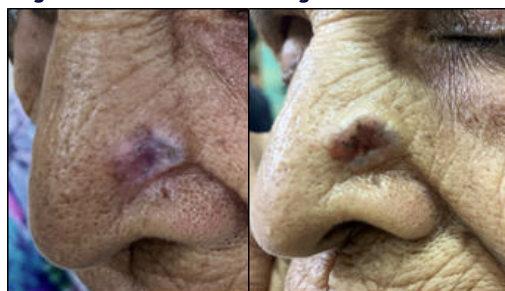


Figure:5

Figure:6

1) Figure no 3 & 4 should be Dermoscopy finding before and after cryotherapy which you have written gross photograph which is wrong. It should be Figure no 3 & 4 depicts dermoscopy of BCC before cryotherapy (baseline) and after cryotherapy (8th week) respectively.

2) Figure-5, 6 are actually gross photograph which you have written/ printed as dermoscopy of BCC before cryotherapy (baseline) and after cryotherapy (8th week) respectively which is wrong.

It should be Figure 5 is gross photograph of BCC after therapy and Figure 6 is gross photograph of BCC before therapy

Which you have printed and placed at wrongly. Ideally the figure no 6 should be before figure no 5 and it should be written/ printed as gross photograph before therapy(figure 6), and figure no 5 should be printed after figure no 6 as gross photograph after therapy.

Please do the needful change with proper placements of figures/ diagrams and legends.

Actually in any paper gross photograph comes first followed by Dermoscopic findings. So please do it like this Figure no 6 followed by figure no 5 followed by figure no 3 and then figure no 4 that will clarify and correct everything.

Discussion :

BCC is common skin cancer specially in elderly persons. Management includes near total or total removal of tumor with maximum possible preservation of tissue. Other factors which are important in the management are age and general condition of patient, associated co morbidities and cost of management. Large number of these patients present late with ulcerating lesions and local destruction. Most of these patients are weak, moribund and may be unable to afford the cost and stress of repeated surgical procedure.

Since the use of dermoscopy in management of BCC it has been found that it may prove to be of great value for the assessment and outcome of BCC.^[6]

It has been seen that if post procedure dermoscopy shows arborizing vessels, ulceration or any other BCC related pigmented structure ; the possibility of residual disease or recurrence is 100% and we have to proceed for further treatment but if dermoscopy shows absence of diagnostic criteria than we can take it as complete removal of tumor. Once treated by any procedure patients should be followed to detect recurrence and as this is OPD procedure it is easy to use for follow up and early detection of any recurrence.

Dermoscopy can even be useful for diagnosis of tumor in preclinical/ subclinical stage by finding of changes in peripheral areas of apparently normal looking skin. Even it may be useful to differentiate tumoral vessels from vessels in perilesional area which appear blurred and dark red.^[6]

Dermoscopy being a non-invasive technique is easily tolerated by these old, morbid and weak patients with just a good technical training requirement.

Conclusion: Dermoscopy is Novel technique Which can be used to assess and diagnose the lesion and to assess efficacy of treatment.

Future perspective

Irrespective of modalities of treatment used for the management of BCC according to clinical and financial condition of patient, dermoscopy is a good hands on procedure to assess; the tumor and response to treatment. It may help in predicting the response to treatment and even selecting the best modality for a particular patient. It might be of great value for post treatment assessment and early detection of recurrence.

Further improvement in power of dermoscope might provide microscopic power in hands for handy and early diagnosis of BCC. The patients in whom lesions didn't improve by cryotherapy was also confirmed by Dermoscopy with persistence of lesion. It means Dermoscopy can be used to assess the disappearance or persistence of lesion irrespective of treatment modality.

In this way we can assume that if the power of Dermoscope can be increased to the extent of microscope then Dermoscopy may become a novel technique in the assessment of BCC or any other pathology.

Financial & Conflict of interests:

The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. No writing assistance was utilized in the production of this manuscript.

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