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A Single Case Study on the Effect of Excision and *Kshara Karma* in the Management of Basal Cell Carcinoma

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ABSTRACT

Basal cell carcinoma (BCC) is a skin malignancy that rarely metastasizes and is the local invasive carcinoma of the basal layer of the epidermis. This is usually a slow growing, locally invasive tumour. The characteristic finding is of ovoid cells in nests with a single 'palisading' layer. It is only the outer layer of cells that actively divide. High risk BCCs are the ones that are large (>2 cm) and located at specific sites (near the eye, nose, ear) and have ill-defined margins. The main line of treatment adopted is the Radiotherapy, Surgery- excision, Local Chemotherapy, Laser etc. Based on the features of BCC we can co-relate the condition as *raktarbuda* in our classics. Therefore considering *arbuda* as *chedya vyadhi*, *chedana* was done followed by *shodhana* using *kshara*. This has caused complete remission of the disease with no recurrence in long term follow up.

KEYWORDS

Basal cell carcinoma, Raktarbuda, Chedana and Shodhana, Kshara



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INTRODUCTION

A tumor or neoplasm is a swelling of a part of the body, generally without inflammation, caused by an abnormal growth of tissue, whether benign or malignant¹. The word carcinoma is defined as a malignant tumor arising from cells in the surface layer or lining membrane of an organ. They tend to infiltrate and metastasize to distant organs or parts of the body².

Among the common tumors of the skin BCC is the one skin carcinoma. Basal cell carcinoma is a skin malignancy that rarely metastasises³ and is the local invasive carcinoma of the basal layer of the epidermis. This is usually a slow growing, locally invasive tumour of pluripotent epithelial cells arising from basal epidermis and hair follicles, hence it affects the pilosebaceous skin⁴, also commonly known as rodent ulcers because they gradually gnaw away in the skin (like a rodent). The strongest predisposing factor to BCC is UVR. It occurs in the elderly or the middle aged after excessive sun exposure, with 95% occurring between the age of 48-80 years. Other predisposing factors include exposure to arsenical compounds, coal tar, aromatic hydrocarbons, ionising radiation and genetic skin cancer syndromes. BCCs have no apparent precursor lesions and their

development is proportional to the initial dose of the carcinogen, but not duration of exposure. BCC can be divided into localized (nodular, nodulocystic- 90% of the cases, cystic, pigmented and naevoid) and generalized lesions. These lesions can be superficial (multifocal or superficial spreading) or infiltrative (morphoeic, ice pick and cicatrising). Twenty-six histological types have been described. The characteristic finding is of ovoid cells in nests with a single 'palisading' layer. It is only the outer layer of cells that actively divide⁵. The principal complaint is of a persisting lesion- either an ulcer or a nodule. When the tumour starts as a nodule, gradually the center of the nodule dies and results in ulcer which has rolled edge. As the growth spreads, the shape of the ulcer becomes irregular. It is not painful in the beginning, though it may itch. The lesion grows slowly and a little bleeding may be complained by the patient. If untreated it becomes quite big and deep. It may then cause pain, bleeding and may become infected. The floor of this ulcer will be covered with a coat of dried serum and epithelial cells. If this sheds off, the ulcer will bleed. The regional lymph nodes are not usually enlarged in this condition. There are 'high risk' and 'low risk' BCCs. High risk BCCs are the ones that are large (>2 cm) and located at specific sites (near the



eye, nose, ear) and have ill-defined margins. Recurrent tumours and those which are forming in the presence of immunosuppression and are also of higher risk. Confirmatory diagnosis can be done through the histopathological investigation. The main line of treatment adopted is the Radiotherapy, Surgery- excision, Cryosurgery, Local Chemotherapy, and Laser⁶.

Based on the presenting features the condition can be correlated to *raktarbuda* as per aurveda. Aggravated *doshas* along with *rakta*, causes formation of mass of muscle, which exudes vitiated blood and that which bulges up growing continuously etc. have been mentioned as classical *lakshana* of *raktarbuda*⁷. This is considered to be the *asadhya vyadhi* in the later stages where there would be severe loss of blood and patient becomes anemic. The disease being recent in origin is always curable. Therefore considering *arbuda* as *chedya vyadhi*, *chedana* was done followed by *shodhana* using *kshara*.

CASE REPORT

A 37 year old female from a middle class economic background presented at the OPD of Shalyatantra Department, SDMCA, Udupi on 8/03/2019 with raised mass in right thigh since 8 months which was

associated with bleeding on touch since 4 months. Eight months back, patient noticed a small growth which was blackish in color in her right thigh. The growth went on increasing in its size gradually without any associated complaints like pain, fever etc. As it didn't make any discomfort to her, she left it untreated. Further the surface of the swelling got raised gradually and she noticed that there was bleeding from the swelling by touch and minor trauma at the site. Since 15 days she developed mild pricking pain and she consulted our OPD. As the lesion was suspicious, an edge biopsy was taken which revealed Basal cell carcinoma.

History is not significant for Hypertension, DM, previous surgery and drug allergy.

She was thoroughly examined and general examination was not significant for any abnormality. Pulse rate-78/min, Heart Rate-78/min, Respiratory Rate-20/min, Temperature-98.6 F, BP-110/70mmhg. Local examination showed a swelling of 1.74cm x 1.7cm with circumference of 5.3cm and having 2.05cm² area, was present in the anterior lateral aspect of the right mid-thigh. The swelling was oval, blackish with a raised, irregular surface, beaded edge and a well-defined border. Surrounding skin appeared normal. On palpation the surface was rough, non-tender with bleeding on touch



positive. The swelling was hard in consistency and was confined to skin. Based on these findings the swelling was initially considered to be a Granuloma and was treated with Kshara application. Results obtained were seen only in the reduction of the size but bleeding continued as before which made to suspect the lesion to be other than Granuloma and hence the excision biopsy was planned. The sample was sent for the histopathological investigation which revealed the diagnosis as SUGGESTIVE OF NODULAR BASAL CELL CARCINOMA (NODULO-CYSTIC/ADENOID VARIANT) and hence the attempt for the excision of the lump and Kshara application was planned. After the patient was put in left lateral position, painting and draping to the right thigh was done under aseptic precautions. With Mithaline blue 1cm margin all around the carcinomatous growth was marked to spot the lesion (Figure no 1).

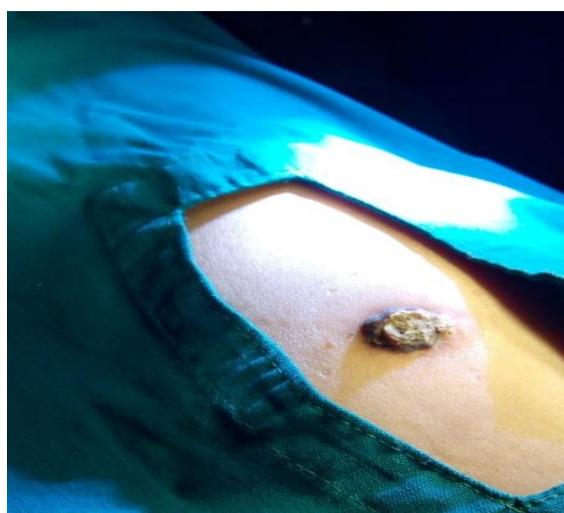


Figure 1 Before excision of the mass

LA was infiltrated around the growth in marked area. With scalpel blade No.15 incision was put in circular shape around the marked area. With the help of Allie's tissue holding forceps one edge was held and with cautery excision was done completely (Figure no 2).

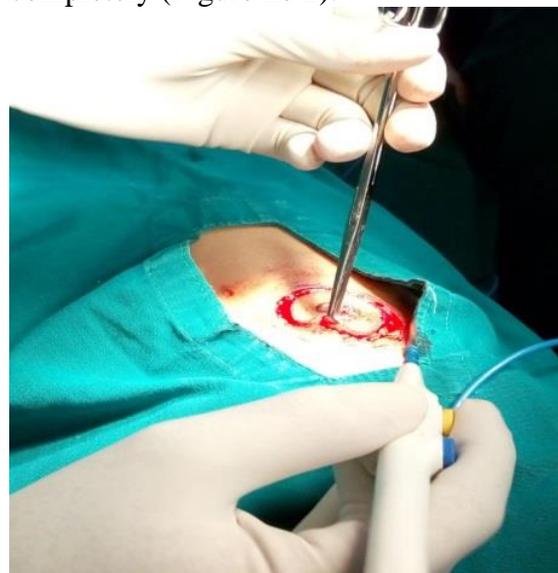


Figure 2 Excision of BCC

Complete hemostasis was assured. *Apamarga Kshara* was applied over surgical wound area and left for 1 min and washed with lemon extract and Normal Saline (Figure no 3).



Figure 3 After complete excision and kshara karma

Yastimadhu Gritha dressing was done. Surrounding area was cleaned with surgical spirit. The specimen was sent for histopathological study.



Patient was treated with a short course of Taxim 200 mg 1-0-1 for 5 days; Calpol 500 mg 1 sos followed by oral medications *Kaishora Guggulu* and *Asanadi Kwatha* 50 ml BD for a period of 30 days. Patient was advised for the daily dressing. Dressing was done with Betadine and Metrogyl solution for initial 5 days after which Betadine ointment was used for dressing. Once the healthy granulation tissue was appreciated in the floor, then the dressing was carried out with *Jatyadi Taila*. When the floor got covered completely with healthy granulation tissue, *Avachurnana* with *Dhataki* and *Lodhara churna* was done till the wound healed completely. No recurrences of the swelling observed on 4 months follow up.

RESULTS

After complete excision the daily dressing was carried out using Betadine ointment till the slough got reduced. Shrinkage in the size of the ulcer and filling of the floor of the ulcer by granulation tissue was seen soon after the dressing was started with *jatyadi taila* (Figure no 4 and 5).



Figure 4 After 1 week



Figure 5 After 2 weeks

Once the ulcer has raised up to the skin level the dressing was carried out using *avachurnana* which helped in complete healing of the ulcer (Figure no 6, 7 and 8).



Figure 6 After 4 weeks



Figure 7 After 6 weeks



Figure 8 After 10 weeks



DISCUSSION

BCC here can be considered as *raktarbuda* which is in its initial stage of growth. The general indication for *arbuda* among *astavidhashastra karma* is *chedana karma*. After *chedana* the condition can be considered as *vrana* of which *shodhana* is a must. *Kshara* is one such drug which has better *shodhana* property in case of carcinoma to ovoid recurrence due to its special properties. *Kshara karma* is one of the *Anushalya* procedures which has got a wide range of use. *Pratisaraneeya kshara* being one type of *kshara* has been indicated in *Arbuda*, which can be considered as the carcinogenic growths as per modern science. BCC is now known to be treated with excision followed by radiation therapy. Result of excision and radiation can be achieved by excision and application of *Kshara* as it is considered to be the one which does *ksharana* and *kshanana* action. For many decades, external beam radiotherapy (RT) has been proven as an effective treatment modality which achieves cure rates of 92–96%. At the same time, RT yields excellent functional and usually good cosmetic results. Therefore, RT is a proven alternative to many invasive, i.e. surgical, treatment modalities. The late toxicity effect of radiation can be overcome by the use of *kshara*. *Apamarga Kshara*

produces debridement by its hygroscopic nature and thus acting over the pluripotent epithelial cells. Healing of the post-operative wound also took place with progressive granulation tissue development and minimal scar formation.

CONCLUSION

Nonmelanoma skin cancers (NMSCs), which include basal and squamous cell cancers are the most common human cancers. BCCs have a relatively low metastatic rate and slow growth and are frequently underreported. Surgical excision with predetermined margins remains the mainstay treatment for most BCC. Ayurveda has also considered the excision as the treatment protocol for *arbuda*. Recurrence of *arbuda* is very high if the complete excision is not carried out. Application of *kshara* after *chedana* helps to do complete *shodhana* and thus avoiding recurrence. *Kshara* also helps in *rakta sthambana*. Thus an effective and curative treatment for the BCC has been taken up in this case study.



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