Summary

Basal cell carcinoma is a malignancy derived from the keratinocytes and stroma of the pilosebaceousfollicle and is the most common malignancy in white people. It accounts for approximately 75% of all non melanoma skin cancers and almost one fourth of all body cancers. Sun exposure is the main causative factor in the pathogenesis of basal cell carcinoma The risk of this disease is significantly increased by recreational exposure to the sun during childhood and adolescence.

Exposures to ionizing radiation,Arsenic and oral methoxsalen (psoralen) have als been linked to the development of basal cell carcinoma. Immunosuppression predisposes persons to basal cell carcinoma. Renal transplant recipients have a risk of basal-cell carcinoma that is 10 times that among a population of those who have not received renal transplants.A positive family history of skin cancer seems to be a predictor of development of basal cell carcinoma.The pathogenesis of basal cell carcinoma most commonly involve exposure to ultra violet light which triggers mutations in tumor supressor gene.Other factors that appear to be involved in the pathogenesis including mutations in regulatory genes and exposure to ionizing radiation. There are different clinico-pathological subtypes of basal cell carcinoma; Superficial BCC ,Nodular, Micronodular, Morpheaform ,Infiltrative growth, Metatypical, Keratotic, Infundibulocystic, Follicular and Pleomorphic BCCs

Medical history of the patient age, tumour localization and size, physical condition, histological outcomes and cosmetic aspects will eventually determine the choice of therapy. Various surgical and non-surgical therapies are available for the treatment of BCC.Surgical treatment includes Surgical excision, Curettage and electrodesiccation , Mohs

micrographic surgery and Cryosurgery.while none Surgical treatment includes Radiation therapy, Photodynamic therapy ,Topical 5-Fluorouracil and immune-response modifier(Imiquimod).Primary closure is used in small lesions while other reconstructive methods are used for larger tumors which leave large defects and these methods include either skin graft(full thickness or split thickness graft) or flaps. Flaps include local flaps or distant flaps,local flaps are divided into two groups;those that rotate around a fixed point(e.g. rotational flap ,transposition flap or interpolated flap)and advancement flaps(e.g. single pedicle advancement flap, bipedicle advancement flap, and V-Y advancement flap).Distant flaps are required after resection of more extensive lesions leaving a wide raw area for coverage after excision(e.g. deltopectoral flap, trapezius flap, latissimus dorsi flap, and pectoralis major flap) .

Table (6) : Summary of advantages and disadvantages of basal cell carcinoma treatments.

Treatment option	Advantages	Disadvantages
Surgical excision	1.Low 5-year recurrence rate with complete tumour excision . 2.Tissue sample available for histologic analysis.	1. Incomplete margin control. 2. Removal of healthy tissue. 3. Requires local anesthesia. 4. Time consuming. 5. Potential scarring.
Curettage and Electrodesiccation	5 –year recurrence rate comparable with surgical excision.	1. Multiple treatment cycles. recommended. 2. Requires local anesthesia. 3. Risk of scarring. 4. Less desirable cosmetic outcome.
Mohs micrographic surgery	1- Lowest 5-year recurrence rate for surgical BCC treatments. 2-Maximal healthy tissue conservation. 3-Histologic analysis during procedure to define margins.	1. Requires specialized training. 2. Time consuming and costly. 3. Longer operating time. 4. Longer recovery period procedure . 5. Requires local anesthesia. 6. Potential scarring. 7. Less desirable cosmetic outcome

Cryosurgery	Quick procedure to perform	1.Multiple treatment cycles recommended . 2. Prolonged healing time . 3. Significant pain. 4.Less desirable cosmetic outcome (e.g.significant hypopigmentation).
Radiation	1.No surgical technique . 2.Useful to treat large tumor or tumor in difficult locate.	1. Multiple treatment cycles at a specialized center. 2.Radiation exposure is a risk factor for skin cancer. 3.Appearance of irradiated skin may deteriorate over time. 4. Not recommended for younger patients (e.g. < 50 years of age).
Photodynamic therapy	No surgical technique	1.Multiple treatment cycles recommended. 2.Inconvenient two-stage process for one treatment . 3.Risk of photosensitivity . 4.Treatment generally over a 2-day period . 5.Limited tissue penetration . 6.Investigational for the treatment of BCC .

Topical 5-fluorouracil	1-Nonsurgical technique . 2- Patient-applied therapy. 3- FDA approved in the treatment of sBCC .	1. Only effective on superficial tumors. 2.Lack of long-term recurrence rates. 3.Local skin reactions common during therapy. 4.Cytodestructive, caustic agent. 5.Limited tissue penetration. 6. May increase skin's sensitivity to sunlight.
Topical imiquimod 5% cream	1. Nonsurgical technique . 2. Patient-applied therapy. 3. Uses body's immune system to destroy tumor cells. 4. Well tolerated . 5.Favorable cosmetic outcome.	1.Lack of long-term recurrence rates. 2. Local skin reactions common during therapy. 3.Investigational for the treatment of BCC.