Revisión sobre manejo terapeutico del Carcinoma Basocelular. Tomado de la base de datos DynaMed; support site: Ebsco Host. Tomado de la Biblioteca Virtual de la Universidad Central de Venezuela

- Little quality evidence to guide therapy of basal cell carcinoma
    - surgery appears to be most effective treatment
    - systematic review of 19 trials, most trials evaluated BCCs in low-risk areas
    - surgery prevents persistent tumors and recurrences at 4 years compared to radiotherapy, based on 1 randomized trial
    - cryotherapy had more recurrences than radiotherapy at 1 year, but differences between cryotherapy and surgery did not reach statistical significance
    - imiquimod promising in preliminary studies but not compared to surgery
        - imiquimod once daily for 6 weeks had 87-88% success rate for superficial BCC
        - imiquimod once daily for 12 weeks had 76% success rate for nodular BCC
    - Reference - systematic review last updated 2003 Feb 26 (Cochrane Library 2003 Issue 2:CD003412), also published (with 6 additional trials reviewed) in BMJ 2004 Sep 25;329(7468):705

Medications:

- topical chemotherapy - unacceptable cure rates
- 5-fluorouracil should not be used for treatment of BCC unless in the rare basal cell nevus syndrome, 5-FU only destroys surface tumor and will not destroy deeper cells
- imiquimod
    - imiquimod (Aldara) FDA approved for superficial basal cell carcinoma (FDA Press Release 2004 Jul 15)
    - **imiquimod 5% cream (Aldara) 5-7 times weekly for 6 weeks highly effective in 12-week follow-up**; 724 patients with superficial basal cell carcinoma were randomized to imiquimod 5% vs. vehicle cream once daily for 5-7 times weekly for 6 weeks in 2 trials, lesion site examined 12 weeks after treatment then excised for histological evaluation; histologic clearance rates 79-82%, combined clinical and histologic clearance rates 73-75% with imiquimod vs. 2% with vehicle alone (NNT 1.4) (J Am Acad Dermatol 2004 May;50(5):722 in The Medical Letter 2004 May 24;46(1183):42), commentary can be found in Am Fam Physician 2004 Sep 1;70(5):932
    - **imiquimod 5% cream shows promise in pilot study**; 35 patients with nodular or superficial basal cell carcinoma randomized to imiquimod 5% cream vs. vehicle cream in 5

treatment schedules for 16 weeks, 83% vs. 9% had complete histological clearance of tumors in posttreatment biopsy, 4 trials underway (Modern Med 1999 Jun;67(6):46)
    - **imiquimod cream appears to have higher efficacy with more frequent use**; 99 patients with superficial basal cell carcinoma randomized to imiquimod 5% cream twice daily vs. once daily vs. twice daily 3 times weekly vs. once daily 3 times weekly for 6 weeks, excision at 6 weeks, 100% vs. 88% vs. 73% vs. 70% had histologic clearance, the 100% rate of clearance in the twice daily group is based on only 3 patients (J Am Acad Dermatol 2001 May;44(5):807)
    - imiquimod 5% cream applied once daily for 7 days/week more effective than less frequent dosing; 92 patients with nodular BCC randomized to imiquimod vs. placebo once daily for 3, 5 or 7 days/week or twice daily for 7 days/week for 12 weeks, 16 (76%) of 21 patients using imiquimod once daily for 7 days/week had clearance of tumor on excision at 12 weeks (Arch Dermatol 2002 Sep;138(9):1165 in JAMA 2002 Dec 4;288(21):2666)
    - **imiquimod may cause systemic effects through diffusion of cytokines from skin into systemic circulation**; fatigue, influenza-like illness, exfoliative dermatitis, and angioedema have been reported; systemic effects related to frequency of dosing (The Medical Letter 2004 Nov 8;46(1195):92)
- **tazarotene 0.1% topically effective in uncontrolled study**; 20 patients with basal cell carcinoma had 17 nodular and 13 superficial lesions treated with tazarotene 0.1% in gel applied once daily for up to 8 months, 16 of 30 lesions (53%) had complete response in 5-8 months (N Engl J Med 1999 Dec 2;341(23):1767)

Surgery:

- complete removal curative
    - almost always cured by surgical resection (scraper, electric needle, liquid nitrogen)
    - extensive for cancer of nasolabial folds, medial and lateral canthi or postauricular regions which are especially aggressive
- **electrodesiccation and curettage may have acceptable recurrence rate**; retrospective chart review of 110 patients treated with excision and 158 patients treated with electrodesiccation and curettage by 2 dermatologists for primary nonmelanoma skin cancer (72% were basal cell carcinomas), recurrences at 5 years found in 1 excision patient (1.4%) and 5 electrodesiccation and curettage patients (4%) (Dermatol Surg 2002 Dec;28(12):1138 in QuickScan Reviews in Fam Pract 2003 Aug 29;28(11):12)
- **curettage alone reported to have cure rate similar to curettage and electrodesiccation (level 3 [lacking direct] evidence)**
    - based on retrospective case series
    - 302 patients with biopsy-proven basal cell carcinoma treated with curettage alone by single investigator and followwed for at

least 5 years
    - 96% 5-year cure rate
    - increased recurrence risk in tumors involving > 50% of deep edge of shave biopsy specimen
    - Reference - J Am Acad Dermatol 2006 Jun;54(6):1039
- excision with primary closure - 95% cure rate, reconstruction if necessary
- Mohs' micrographic surgery - 99% cure rate
    - tumor mapping, immediate reconstruction
    - most applicable to recurrent tumors, morphea-like, nose or perinasal areas
    - **Moh's micrographic surgery reported to be associated with lower recurrence rates than surgical excision but differences not significant (level 2 [mid-level] evidence)**; 374 patients with 408 primary facial basal cell carcinomas and 191 patients with 204 recurrent facial basal cell carcinomas were randomized to surgical excision vs. Mohs' micrographic surgery, 397 primary and 201 recurrent tumors were treated, 66 primary (17%) and 13 recurrent (6%) tumors were lost to follow-up; recurrence rates for primary carcinomas during 30 months of follow-up were 3% (5 cases) with surgical excision vs. 2% (3 cases) with Mohs' micrographic surgery, recurrence rates for recurrent carcinomas during 18 months of follow-up were 3% (3 cases) with surgical excision vs. none with Mohs' micrographic surgery, neither difference was statistically significant; Mohs' micrographic surgery had significantly higher total operative costs (Lancet 2004 Nov 13;364(9447):1766), editorial can be found in Lancet 2004 Nov 13;364(9447):1732, commentary can be found in Lancet 2005 Apr 2;365(9466):1226
    - risk factors for requiring 3 or more layers of Mohs micrographic surgery in retrospective series of 1,131 cases were basosquamous and morpheaform basal cell carcinoma (BCC) on the nose, morpheaform BCC on the cheek, preoperative size > 25 mm, tumor size > 10 mm, recurrent and nodular BCC on the nose; location on the eyelid, temple, or ear helix; neck tumors and recurrent BCC in men (Arch Dermatol 2002 Aug;138(8):1043 in JAMA 2002 Nov 20;288(19):2386)
    - preoperative intra-incisional clindamycin reduced surgical wound infections in randomized trial of 1,030 patients undergoing dermatologic reconstruction after Mohs micrographic surgery (Arch Dermatol 2002 Sep;138(9):1145 in JAMA 2002 Dec 11;288(22):2802)
    - Mohs micrographic surgery may not be cost effective for facial basal cell caricoma, based on 408 primary cases in 374 patients and 204 recurrent cases in 191 patients (Arch Dermatol 2006 Feb;142(2):187)
    - review of Mohs micrographic surgery can be found in Am Fam Physician 2005 Sep 1;72(5):845
- wide re-excision for recurrent disease
- early treatment of tumor remaining at margin of resection (e.g.

immediate postoperative period) may be associated with less extensive surgery, based on review of 994 patients (Arch Dermatol 2000 Nov;136(11):1318 in JAMA 2001 Feb 14;285(6):717)
- review of electrosurgery of skin lesions can be found in Am Fam Physician 2002 Oct 1;66(7):1259, correction can be found in Am Fam Physician 2002 Dec 15;66(12):2208

Other management:

- **no evidence to support or refute use of cryosurgery or curettage and electrodesiccation over surgical excision or Mohs surgery**; literature review of 18 studies with at least 50 patients with primary BCC followed for at least 5 years, heterogeneity of studies does not allow for extensive comparisons (Arch Dermatol 1999 Oct;135(10):1177 in POEMs in J Fam Pract 2000 Jan;49(1):80), editorial can be found in Arch Dermatol 1999 Oct;135(10):1255, summary can be found in Am Fam Physician 2000 Mar 1;61(5):1460
- curettage and electrodesiccation - 95% cure rate, acceptable if < 2 cm, disadvantage of lack of specimen
- radiation therapy (RT) - 90% cure rate, where tissue preservation important (e.g. eyelid), disadvantage is that depigmentation and skin atrophy can occur
- cryotherapy - higher morbidity, scarring less predictable
- photodynamic therapy effective for large basal cell carcinomas in open trial; 40 large basal cell carcinomas were treated with 5-aminolevulinic acid photodynamic therapy, 33 (88%) cleared after 1 to 3 treatments, 4 recurred within 34 months (Arch Dermatol 2001 Mar;137(3):319 in JAMA 2001 Jun 13;285(22):2839)
- guidelines for topical photodynamic therapy from British Association of Dermatologists can be found in Br J Dermatol 2002 Apr;146(4):552 PDF or at National Guideline Clearinghouse 2005 Aug 15:6622

Prevention and Screening

Prevention:

- American College of Preventive Medicine guidelines for skin protection from ultraviolet light exposure can be found in Am J Prev Med 1998 Jan;14(1):83
- **sunscreen and beta-carotene supplementation not protective, although sunscreen protective against number of squamous cell carcinomas**
    - 1,621 patients in Australia randomized to sunscreen (daily application of SPF 15-plus sunscreen to head, neck, arms and hands) and beta-carotene supplementation (30 mg/day) vs. sunscreen and placebo vs. beta-carotene only vs. placebo only for 4.5 years
    - intention to treat analysis stated, analysis of effect of sunscreen was based only on skin cancers that developed on sites of daily application

    - 1,383 (85%) participants underwent full skin examination by dermatologist in follow-up period, of whom 250 (18%) developed 758 new skin cancers
    - no significant differences in incidence of first new skin cancers between groups randomized to daily sunscreen vs. no daily sunscreen (basal cell carcinoma 2,588 vs. 2,509 per 100,000, squamous cell carcinoma 876 vs. 996 per 100,000) or between beta-carotene vs. placebo groups (basal cell carcinoma 3,954 vs. 3,806 per 100,000, squamous cell carcinoma 1508 vs. 1146 per 100,000)
    - in terms of number of tumors, no effect on incidence of basal cell carcinoma by sunscreen use or by beta-carotene but incidence of squamous cell carcinoma was significantly lowered in sunscreen group than in no daily sunscreen group (1,115 vs. 1,832 per 100,000, NNT 139 to prevent 1 tumor)
    - Reference - Lancet 1999 Aug 28;354(9180):723, editorial can be found in Lancet 1999 Aug 28;354(9180):699, correction can be found in Lancet 1999 Sep 18;354(9183):1038, commentary can be found in Lancet 1999 Dec 18-25;354(9196):2163, commentary can be found in ACP J Club 2000 May-Jun;132(3):101
- sunscreen protective against squamous cell carcinoma but no convincing evidence about protection from basal cell carcinoma or melanoma (CMAJ 2005 Aug 2;173(3):244)
- beta-carotene not protective in preventing non-melanoma skin cancer in randomized trial of US male physicians (Arch Dermatol 2000 Feb;136(2):179 in BMJ 2000 Mar 18;320(7237):814)
- review of skin cancer detection and prevention can be found in Mayo Clin Proc 2000 May;75(5):491
- United States Preventive Services Task Force (USPSTF) finds insufficient evidence to recommend for or against routine counseling by primary care clinicians to prevent skin cancer (National Guideline Clearinghouse 2003 Oct 20:3728)
- summary of 2 guidelines on screening and prevention of skin cancer (USPSTF 2001 and 2003, SIGN 2003) can be found in National Guideline Clearinghouse 2005 May 30:SKIN_CANCER1

Authors:

- Brian S. Alper MD, MSPH (Research Assistant Professor in Family and Community Medicine, University of Missouri-Columbia, Columbia, Missouri, USA), author from 1995 Dec 5 to present

Reviewers:

- Reviewer needed – Contact Editor@DynamicMedical.com to become a reviewer for this summary

Acknowledgements:

- Over 500 journals and evidence-based sources are monitored directly or indirectly through DynaMed Systematic Literature Surveillance. DynaMed Summaries are updated daily as newly discovered best available evidence is identified.
- Author has declared no competing interests (financial or otherwise) related to this topic.