

## ■ JOURNAL WATCH

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### **The use of ivermectin in controlling an outbreak of scabies in a prison**

Leppard B, Naburi AE.

*Br J Dermatol* 2000;143:520-3.

Ivermectin is a broad-spectrum anti-helminthic with excellent safety profile. It works by binding strongly and selectively to glutamate-gated chloride ion channels that are found in vertebrate nerve and muscle cells. This leads to an increase in chloride ions within these cells, causing paralysis and death of the parasites. An outbreak of scabies occurred in a prison in Tanzania in 1996. A single oral dose of ivermectin 150 microgram/kg was given under supervision to 1153 prisoners (1098 males, 49 females and six young children) including 16 crusted scabies. The prison cells were also disinfected. Clinical visits were made at one, four, eight and 12 weeks. Thirty percent of the prisoners were cured after one week, 88% after four weeks and 99.5% after eight weeks. Of 16 prisoners with crusted scabies, seven (44%) still had scabies after eight weeks. Those who were not cured were then treated with 1% lindane lotion topically.

The authors concluded that single-dose ivermectin was an effective and safe treatment for scabies, particularly in an institutional environment because it is easy to administer and avoids problems with compliance. It has virtually no side-effect. However, in patient with crusted scabies, combination therapy with a topical scabicide is recommended.

### **Incidence of skin cancer in 5356 patients following organ transplantation**

Lindelof B, Sigurgeirsson B, Gabel H, Stern RS.

*Br J Dermatol* 2000;143:513-9.

Organ transplant recipients are at an increased risk for skin cancer, most frequently squamous cell carcinoma and basal cell carcinoma. A population-based cohort of 5356 patients who received organ transplants (88% renal transplant) in Sweden between 1970 and 1994 was linked to the compulsory Swedish Cancer Registry to identify all skin cancer cases except basal cell carcinoma, which are not registered.

After a mean follow-up of 5.6 years post-transplantation, 172 of 5356 patients developed 325 non-melanoma skin cancers (NMSCs) and six malignant melanomas. The relative risk of NMSC was 108.6 for men and 92.8 for women. Lip cancer risk was also substantially increased after transplantation. The highest risks were noted for upper limbs, and the risk increased with time. All NMSCs and lip cancers were squamous

cell carcinomas except for two cases of Kaposi's sarcoma and one case of adenoid cystic carcinoma of lip. No significant increase in malignant melanomas was noted. The authors concluded that organ transplant recipients were at a highly increased risk for NMSC. The increase in risk began within a few years of transplantation and reached very high levels within five years. This increase in risk appeared quite specific to sun-exposed areas.

### **Treatment of atopic eczema with oral mycophenolate mofetil**

Neuber K, Schwartz I, Itschert G, Tom Dieck A.

*Br J Dermatol* 2000;143:385-91.

Mycophenolate mofetil (MMF) blocks the proliferative responses of T and B lymphocytes and inhibits antibody formation and the generation of cytotoxic T cells. As activated T and B lymphocytes are the main inflammatory cells in atopic eczema (AE), a therapeutic effect of MMF might be expected in AE lesions. Ten patients (five males and five females, mean age 37.4 years) with severe AE (severity score >50) according to the Severity Scoring of Atopic Dermatitis (SCORAD) index were treated with MMF 1 gram daily for one week followed by 2 grams daily for a further 11 weeks. All patients completed the study without significant side-effects. Improvement was noted in most patients at four weeks of treatment. After 12 weeks, an improvement of 100% was observed in one patient and the improvement was >75% in three patients. The other patients had an improvement of >50%. The median severity scores improved by 68%. The median IgE level decreased significantly. The main side effects of MMF are gastrointestinal disturbance. In contrast to other immunosuppressive agents, MMF does not produce clinically significant hepatotoxicity or nephrotoxicity. The authors concluded that MMF was an effective, safe and well-tolerated immunosuppressive therapy for severe AE in adults.

### **Electrosurgical facial resurfacing, a prospective multicenter study of efficacy and safety**

Grekin RC, Tope WD, Yarborough JM, et al.

*Arch Dermatol* 2000;136:1309-16.

Radiofrequency resurfacing with a bipolar electrode-tipped stylet delivering relatively low-radiofrequency energy through an electrically conductive medium was used to treat 95 patients with mild to severe photodamage (Fitzpatrick classes I-III) involving perioral (50 sites) and periorbital (75 sites)



skin in two to three passes at 125 or 139V. A positive mean improvement in wrinkles for both perioral and periorbital sites was noted by patients, investigators, and, by means of photographs; with greater improvement for patients with more severe wrinkles at baseline. Increased number of passes and higher voltage settings resulted in more wrinkle improvement. In 4% of perioral and 26% of periorbital sites, there was transient postinflammatory hyperpigmentation. Hypertrophic scars were noted in 3.8% of treatment sites, slightly more than those after laser resurfacing, with all but one scar resolved by six months. For the most part, erythema was shortlived, pain was minimal, and healing was fast. Other advantages of radiofrequency resurfacing over laser resurfacing are: better hemostasis, no smoke, debris or light beam (no eye protection is required) is produced.

The authors concluded that radiofrequency resurfacing was an effective treatment for perioral and periorbital wrinkles with similar potential risks but less severe postoperative morbidity than coagulating erbium: YAG or carbon dioxide lasers.

Use of squaric acid dibutylester (SADBE) for cutaneous warts in children  
Micali G, Nasca MR, Tedeschi A, Dall'Oglio F, Pulvirenti N.  
*Pediatr Dermatol* 2000;17:315-8.

A new contact sensitizer, squaric acid dibutylester (SADBE), was used twice weekly in a serial dilutions of 0.03-3% for no more than 10 weeks in 188 children as contact immunotherapy for the treatment of warts. The inclusion criteria were as follows: recurrent multiple wart, patient or parent refusal to undergo surgical or destructive treatment, warts resistant to repeated medical and/or surgical treatments, and single or multiple sites with several warts. Children less than two years old and those with single warts or with flat warts located on the face were excluded. Among the 148 children who completed the study, 124 (84%) achieved complete clinical resolution without significant side effects and 101 out of the 124 patients completed a 24-month follow-up without relapses. Twenty-four patients (16%) were nonresponder. There was no apparent correlation between treatment response and gender, anatomic site, age, atopy, or lesion type. According to the authors, the better response rate might be secondary to the higher concentration of the SADBE they used, more frequent application and the continuation of treatment despite the occurrence of contact dermatitis. So they concluded that SADBE was a relatively safe and effective treatment in children with multiple and resistant warts.

### **Tazarotene plus UVB phototherapy in the treatment of psoriasis**

Koo JYM, Lowe NJ, Lew-Kaya DA, et al.  
*J Am Acad Dermatol* 2000;43:821-8.

Systemic retinoids together with phototherapy has been shown to enhance one another in the treatment of psoriasis. A new topical retinoid known as tazarotene was studied to determine its efficacy in treating psoriasis together with phototherapy.

A total of 54 patients were recruited in an investigators-blinded study. The patients were randomized to receive two of the three following treatment regimens, tazarotene 0.1% gel, vehicle gel and no topical treatment to one of their two target psoriatic plaques in the first two weeks of pre-UVB phototherapy phase. This was followed by UVB phototherapy three times per week for another 67 days. Measures of efficacy were assessed at regular interval of time involving a grading scale used to evaluate the global response to treatment and the degree of plaque elevation.

The results showed that topical tazarotene plus UVB phototherapy reduced the psoriatic plaque more quickly than vehicle gel plus UVB light or UVB phototherapy alone. No major adverse reaction or unusual photosensitivity was noted during the treatment. Topical retinoids together with phototherapy may be another safe and effective treatment option for recalcitrant plaque type psoriasis.

### **Low dose adjunctive spironolactone in the treatment of acne in women: A retrospective analysis of 85 consecutively treated patients**

Shaw JC.  
*J Am Acad Dermatol* 2000;43:498-502.

Spironolactone is an androgen receptor blocking agent that is known to be effective in the treatment of acne in women. Unfortunately, despite its effectiveness, intolerance and side effects were not uncommonly encountered by patients.

A retrospective case analysis study was carried out to assess the therapeutic effect and possible adverse reactions of low dose spironolactone used either singly or as an adjunct in combination with systemic antibiotics, oral contraceptives, or both in women with acne. The records of 85 women with acne were retrieved. These patients received either spironolactone as a single agent or as an adjunct to standard acne therapies in a dosage of 50 to 100 mg/day. The duration of treatment was two to 24 months.



The results showed that low dose spironolactone was an effective and well tolerated therapy for acne vulgaris. The study showed that 66% of the patients treated had their acne cleared or showed marked improvement; 27.4% had partial improvement and only 7% did not respond at all. The author concluded that low dose spironolactone therapy used alone or as adjunct in treating acne were associated with satisfactory outcome.

### **Merkel cell carcinoma: Report of 10 cases and review of the literature**

Akhtar S, Oza KK, Wright J.

*J Am Acad Dermatol* 2000;43:755-67.

Merkel cell carcinoma (MCC) is an aggressive neuroendocrine neoplasm of the skin. It is a rare cutaneous malignancy that mainly affects the elderly patients.

A retrospective study was carried out to gather clinical information for all cases of MCC at an institution from 1986 to 1998. A total of 10 cases were obtained. There were five men and five women. The mean age was 70.3 years old. Most of the tumors occurred over the head and neck region and the rest situated at the extremities. Half of the patients had a relapse of the malignancy either locally or over the regional lymph node or both. In addition, four patients had distant metastasis and died of MCC. A literature review of MCC involving 875 cases showed similar data with a male to female ratio of 1.5 to 1. The main sites of the tumor were head, neck and the extremities. Local and region recurrences with systemic metastasis were common.

The authors concluded that MCC was an aggressive skin tumor. Complete surgical removal with a wide excision margin is the treatment of choice for small, early lesion. The role of chemotherapy and radiotherapy in treating late, recurred lesion is not known.

### **The safety of terbinafine in patients over the age of 60 years: A multicenter trial in onychomycosis of the feet**

Smith EB, Stein LF, Fivenson DP, Atillasoy ES.

*Int J Dermatol* 2000;39:859-64.

An open-label, multicenter prospective study was performed to evaluate the efficacy and safety of terbinafine in toenail onychomycosis in elderly. Thirty patients with age of 60 years or above, positive KOH toenail preparation and toenails capable of regrowth were recruited. After baseline evaluations, terbinafine

250 mg/day was given for 12 weeks. Follow-ups were continued for the next 60 weeks, for a total of 72 weeks. Safety was evaluated by physical examination at baseline and week 12, by laboratory investigations (blood counts, chemistry and urinalysis) at baseline, week 6 and week 12, and by reporting of adverse events. Efficacy was documented by KOH preparation, mycologic culture and investigator evaluation.

Of the thirty patients recruited, 29 (96.7%) completed the study. Thirteen patients experienced 18 adverse events related to terbinafine. All were mild or moderate in severity and transient. Twenty-eight (93.3%) patients were on at least one other medication during terbinafine treatment. No drug interaction was observed. Efficacy analysis of 15 patients with positive mycologic culture showed that 14 (93.3%) had achieved mycologic cure at week 24 while seven (46.7%) had a complete cure at 72 weeks. The authors concluded that terbinafine could be used to treat onychomycosis in elderly safely and effectively.

### **Pulsed erbium: YAG laser-assisted autologous epidermal punch grafting in vitiligo**

Sachdev M, Krupa Shankar DS.

*Int J Dermatol* 2000;39:868-71.

Pulsed erbium: YAG laser-assisted autologous epidermal punch grafting for stable vitiligo was investigated in 13 patients (age: 19 to 58 years) with skin type IV to VI. All had PUVA or topical corticosteroids for more than two years without complete re-pigmentation. Grafts were prepared from donor site with a 2.5 mm biopsy punch. Recipient sites were ablated with a pulsed erbium: YAG laser (spot size 3 mm, at 1600 mJ, 10 Hz in the burst mode of 15 pulses) so that a pinpoint of blood was present at the bottom of each circular site. The minigrafts were put into these sites and pressed into position with saline-soaked gauze. Dressing was applied with framycetin tulle, dry gauze and then crepe bandage. The wounds healed in seven days. PUVA was given three times per week to the grafted sites two weeks after operation.

Repigmentation was noted one month afterwards with extension of the pigment three months later in most (>90%) of the sites in 12 patients (92.3%). No hypertrophic scarring or pigmentary complications occurred at the wounds. Of the 1485 sites grafted, 214 sites (14.4%) failed to repigment. The authors proposed that this technique allowed grafting in difficult sites, had minimal bleeding, was more efficient and less operator-dependent.

**Psoralen-ultraviolet A therapy vs. psoralen-ultraviolet B therapy in the treatment of plaque-type psoriasis: Our experience with Fitzpatrick skin type IV**

Khurshid K, Haroon TS, Hussain I, Pal SS, Jahangir M, Zaman T.  
*Int J Dermatol* 2000;39:865-7.

The efficacy and short-term safety of psoralen-UVB (PUVB) were compared with that of PUVA in psoriatic patients with skin type IV in a randomized, comparative trial. The study patients with stable moderate to severe plaque psoriasis were randomized into two groups. One group (n=22) was treated with PUVB and the other (n=22) with PUVA. Both therapies were given three times per week till 90% clearance. Maintenance therapy at the last dose reached in the clearing phase was given for 10 weeks with decreasing frequency.

No statistically significant difference was found between the two groups (PUVA vs PUVB) in the clearance rate (86.4% vs 77.3%), average duration of therapy (6 weeks vs 5.2 weeks) and median number of exposures (18 vs 16). The median cumulative dose of UVB was less than that of UVA significantly. Both groups had similar acute side effects i.e. nausea, vomiting, pruritis, burning sensation, headache, erythema, etc.

The authors concluded that PUVB had similar efficacy and acute side effects as PUVA in patients with stable plaque psoriasis and skin type IV. However the long term efficacy and complications of PUVB still need to be addressed in future studies.

**Long-term photoepilation using a broad-spectrum intense pulsed light source**

Sadick NS, Weiss RA, Shea CR, Nagel H, Nicholson J, Prieto VG.  
*Arch Dermatol* 2000;136:1336-40.

In a prospective study, 34 hirsute patients (26 women, eight men) were treated with a broad-spectrum intense pulsed light irradiation with pulse duration of 2.6 to 3.3 milliseconds, fluence of 34 to 42 J/cm<sup>2</sup>, 10 x 45-mm exposure field, wavelength of 615 to 695 nm; and application of 1°C cooling gel. Patient satisfaction questionnaires were completed at last follow-up. Hair removal efficiency (HRE) was calculated as percentage ratio of the number of hairs present compared with baseline counts.

After a mean of 3.7 treatments, a mean HRE of 76% was achieved. More than 94% of the sites reached mean HRE values greater than 50%. There was no significant relationship found between HRE and anatomic site, skin type, hair color, or number of treatments. Reversible and mild side effects were observed in a minority of patients (superficial crusting in two and hyperpigmentation in three). To achieve permanent hair removal by photoepilation, "pantricho" destruction of the entire germinative areas of the hair follicle (matrix/bulge/trichoeplithelium) must occur. Thermokinetic selectivity and selective photothermolysis are thought to be the underlying mechanisms.

The authors concluded that maximal photoepilation was achieved from the first one to three treatments and their data proved the long-term clinical efficacy of intense pulsed light source-induced hair removal in dark and light skin phenotypes.