

# Therapeutic Abstracts in Dermatology 2004-2005

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### **Abstract:**

Collectively new development in the field of medical dermatology, will ultimately lead to improve patient care.

This is a comprehensive review over the literature published in 2004 – 2005 concerning the update in the dermatological therapy which will highlight some of the new modality in treatment and diagnosis of dermatological disorder.

### **Skin Cancer:**

- In the treatment of widespread actinic keratosis (AK), Photodynamic therapy (PDT) using Methyl Amino Laevulinate (MAL) was compared with cryotherapy and placebo. The 1<sup>st</sup> group MAL-PDT show excellent result, significantly better than cryotherapy or PDT with placebo cream.<sup>(1)</sup> Another European multicenter trial<sup>(2)</sup> of MAL-PDT appears to have recurrence rates less than those for cryotherapy or 5-fluorouracil (5-Fu) and a better cosmetic result.
- In an audit into the treatment of squamous cell carcinoma (SCC) the main causes of the delay in the referral were incorrect diagnosis and failure to identify the urgency of the suspected skin lesions<sup>(3)</sup>
- In the treatment of nodular basal cell carcinoma (BCC).<sup>(4)</sup> It has been found that MAL-PDT is more effective than conventional PDT.
- In an interesting study comparing extracorporeal photopheresis (ECP) vs Methotrexate (MTX) used in the treatment of erythrodermic cutaneous T-cell lymphoma (CTCL) wain et al.<sup>(5)</sup> The study concluded that MTX and ECP were of similar efficacy in this CTCL group, but ECP was preferred because it has fewer side effects.

### **Update in Dermatological surgery:**

- Dr. Richard Motley pointed from his practice that Botox injections is effective in the treatment of migraine headaches but noted that unlike previous report in facial flushing which occur in acne rosacea does not seem to respond to botulinum toxin injection in the face<sup>(6)</sup>
- Concerning split ear lobes: clinical presentation and histological study suggest that allergy to metals in the earing could lead to split ear lobe; where as the constant pull by heavy earings was probably more likely to result in a stretched ear lobe.<sup>(7)</sup>

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- The dogma that digital anesthesia should not include adrenaline dates from old work using local anesthesia in surgery for Dupuytren's contracture instead of tourniquet, suggest that digital anesthesia significantly increase the rate of digital ischaemia.<sup>(8)</sup>
- In the treatment of melasma in Baghdad lactic acid, an alpha hydroxy acid, was used at full strength (92%), in chemical peels done every 3-weeks for 6 months. The desired response was achieved. Lactic acid is considered an effective and safe peeling agent in the treatment of melasma, with no significant side effect.<sup>(9)</sup>

### **Acne and Hidradenitis Suppurativa**

- Ied Cusak and Buckley: a study of Etanercept in a series of patients with hidradenitis suppurativa. Etanercept 25mg subcutaneous weekly resulted in improvement in extent and severity of disease.<sup>(10)</sup>
- Kaur et al, started six patients with hidradenitis suppurativa on Etanercept at doses of 50 – 100mg daily, with good response from this treatment.<sup>(10)</sup>

### **Infestations:**

- Head lice remain a refractory problem. et al. Have investigated the use of an elegant coconut emulsion for the treatment of Pediculosis capitis, the age of onset and the age at clearing the initial infestation were noted. Applications.<sup>(11)</sup>

### **Treatment of neuropathic pain:**

- TCA's have traditionally been used as first line therapy for neuropathic pain. In a randomized controlled trial using amitriptyline or placebo in patients with post herpetic neuralgia, it was found that early treatment of diagnosis of HZ may prevent the development of post herpetic neuralgia.<sup>(12)</sup>
- Anticonvulsants: Gabapentin, > aminobutyric acid (GABA) analog, binds to and modulates neural voltage-gated calcium channels which is thought to affect neuropathic pain. Other uses for gabapentin include the relief of vulvodynia and pruritus. Gabapentin showed promise for treatment of uremic itch.<sup>(19,20,34,35)</sup> also used for pruritus related to wounds.
- **Pregabalin (Lyrica)** is a related anticonvulsant approved by FDA in 2004 for the treatment of neuropathic pain.<sup>(23)</sup>

- **Pregabalin** is closely related in form and function to gabapentin. It is excreted, unchanged in the urine by passing cytochrome P450. It is a selective ligand of the voltage-gated calcium channels. By reducing the calcium influx into neurons, neurotransmitter release is diminished.<sup>(24)</sup>

#### **Update on drugs and drugs news:**

- **Anti-tumor necrosis factor (anti-TNF) and malignancy.**  
Infliximab, etanercept, and adalimumab are indicated for immune-mediated, rheumatologic dermatologic and gastrointestinal diseases. Bongartz et al, published a meta-analysis of harmful events that occurred in randomized trial of infliximab and adalimumab, the study showed that there is risk of malignancy and serious infection specially with adalimumab but this risk is low, so to take in consideration the severity of the diseases when considering (anti TNF).<sup>(12)</sup>
- **Adalimumab (HUMIRA):**  
The US FDA approved in December 2004 for the additional indication of Psoriatic arthritis.<sup>(13)</sup>

#### **Etanercept in Psoriasis**

Stephen Tyring et al, conclude from his study that Etanercept 50mg twice per week for 3-months followed by 50mg/week for severe psoriasis is a well tolerated biological agent with rapid efficacy in the treatment of psoriasis.<sup>(14)</sup>

#### • **Quanti FERON – TB Gold**

A new serum assay is available to help identify true latent tuberculosis or infection.

Quanti Feron –TB is a whole-blood enzyme-linked immunosorbent assay (ELISA) that recognizes interferon-gamma generated by Mycobacterium tuberculosis. M. Avium, or M. bovis – challenged lymphocytes. This test is specially important as screening tool before anti TNF medication, e.g. Infliximab and adalimumab to discover patients with latent TB.<sup>(15)</sup>

In Korea, where the BCG vaccine is mandatory, confirmed that the modified QTF-G was not significantly influenced by BCG vaccination and was a better assay than Tuberculin skin test for the detection of infection.<sup>(16)</sup>

In 2005 the Food and Drug Administration (FDA) approved the use of QTF-G as an aid for identifying M. Tuberculosis infection. This test may play a role in Patients who have received BCG who require latent M. Tuberculosis screening as indicated prior to the initiation of anti TNF agents.

#### • **Ciclopirox (Loprox) Gel**

Is a broad-spectrum anti fungal medication that also has antibacterial and anti-inflammatory properties. Its main mode of action is thought to be its high affinity for trivalent cations, which inhibit essential co-factors in enzymes. Clinical trials have shown that ciclopirox gel is successful treatment for seborrheic dermatitis of the scalp as well as for tinea pedis, tinea corporis, pityriasis versicolor, seborrheic dermatitis and cutaneous candidiasis.<sup>(25,26,27)</sup>

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