

# Abstracts of 27<sup>th</sup> PAD Conference of Dermatology, Bhurban

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## 1. A comparison of the efficacy & safety of benzoyl peroxide 4% and adapalene 0.1% in the treatment of mild to moderate acne vulgaris

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**Introduction** Acne is an extremely common disease in the adolescent age group in Pakistan.

**Objectives** To compare the efficacy & safety of benzoyl peroxide 4% and adapalene 0.1% in the treatment of mild to moderate acne vulgaris.

**Patients and methods** A total of 200 patients between 13-30 years were enrolled. 100 were treated with topical benzoyl peroxide 4% and 100 with adapalene 0.1% for 12 weeks. Patients were followed up fortnightly.

**Results** Both treatments were generally well tolerated leading to a non-compliance in only 10 patients due to side effects. Efficacy was 90% in both groups

**Conclusion** Benzoyl peroxide is more effective in the treatment of inflammatory acne whereas adapalene is beneficial for the maintenance of comedonal acne.

**Key words** Acne vulgaris, benzoyl peroxide, adapalene

## 2. An update on pH of the commonly used soaps from Pakistani market and those manufactured by the pharmaceuticals

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**Background** The irritant effect of a particular soap is directly related to its pH. Higher the pH of a soap, greater is the irritant effect on the skin. The pH of human skin is around 4.5. The soaps having a pH nearer to the skin pH are supposed to be gentle to the skin. The soap manufacturing companies shun the soaps with pH of 9 or higher. Soaps manufactured by the pharmaceutical companies for patients with specific skin conditions are supposed to be gentle to the diseased skin. In a previous study carried out by the author, the pH of commonly used soaps in Pakistan and those manufactured by the pharmaceutical was determined. However, in that study the pH sticks used could not measure pH beyond a value of 9. As most soaps had a pH  $\geq 9$ , therefore it was essential to repeat the study with pH measuring sticks having a wider range from 0-14 so that we know the exact pH of a soap and hence this study was carried out.

**Objectives** To find out the pH of commonly used soaps from Pakistani market & those manufactured by the pharmaceuticals with pH measuring sticks having a range from 0-14.

**Setting** Skin department, PAF Hospital, Islamabad.

**Materials & methods** A total of 56 soaps including 44 ordinary soaps and 12 manufactured by the pharmaceuticals were purchased from the market. The ordinary soaps included: Dettol® (skin care, fresh, sensitive, original, active deodorant), Lifebuoy® (red lever, red unilever, light blue lever, dark blue unilever, green unilever), Safeguard® (vitamin E, aloe vera, menthol, sandal wood, lemon), Lux® (crystal shine, natural pure, orchid touch, almond delight), Capri® (moisturizing with aloe vera & glycerine, vitalizing with orange & apricot, cleansing with cucumber & tea tree), Opal® (white, pink, green, blue), Protex® cream & herbal, Tibet® deluxe, Palmy® (pink & blue), Palmolive® (lily extract & vitamin E, citrus & cream), Cussons® imperial leather, Pears®,

Ava®, Dura lady, Camay (aqua, orient), Dove cream bar (pink), Blessing baby soap and Johnsons® baby soap. Those manufactured by the pharmaceuticals included: Oilatum®, Stie bar®, Solo bar®, Baby Aid®, Dermacare®, Vitamax®, Vitacare®, Acne wash®, Acneaid®, Acnegon®, Seren® and ZN Bar®. For pH measurement, colorpHast manufactured by EMD Chemicals, Germany an associate of Merck, batch number no. HC 775943 with a pH range from 0-14 was used.

**Results** All the soaps tested including those manufactured by the pharmaceuticals had a pH value of 10 except Dove® having a pH of 6.5, Blessing® baby soap having a pH of 9, Pears® transparent with pH of 10.5 and Lifebuoy® red made by Lever had a pH of 11.

**Conclusion** None of the soaps tested except Dove has a pH value that is safe for use on human skin as per international standards.

**Recommendations** 1. The Ministry of health should take action against the soap manufacturing companies and sale of all the harmful soaps with a pH value of 9 or over should be banned to general public till such time that these companies take remedial measures by bringing the pH of their soaps that is safe for human skin. 2. The electronic and print media should come forward to create awareness in the public about the harmful effects of these soaps. They should also stop advertisements of these harmful products that misguide the public. 3. The dermatologists should stop prescribing the soaps manufactured by the pharmaceuticals. The anti acne soaps are particularly counterproductive because *Propionibacterium acnes* proliferates rather rapidly in the alkaline pH generated by anti-acne soaps thus aggravating acne instead of helping it. 4. The professional bodies of the doctors like Pakistan Medical Association and Infection Control Society of Pakistan should stop helping soap manufacturing companies in the promotion of their products by not appearing in their promotional advertisements. The Pakistan Medical & Dental Council must rise to occasion and curb such unethical practice of professional bodies representing the doctors.

**Key words** Soaps, pH.

### 3. Proposed morphological classification of Leishman-Donovan bodies on fine needle biopsy specimens & its usefulness in deciding modality, duration and monitoring of treatment of cutaneous leishmaniasis

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**Background** Cutaneous leishmaniasis (CL) is a common disease predominantly in resource poor countries of the world. It is imperative to have simple and cheap diagnostic and therapy monitoring tests that shall not only make the treatment more effective but at the same time keep the cost of treatment low and affordable for the poorest segments of the society. In a previous study by the author, it was demonstrated that fine needle biopsy (FNB) followed by Geimsa staining and microscopy of the CL lesions had 100% diagnostic yield. Over the years it was our observation that LD bodies have different morphologies in FNB specimens from different lesions. However, little scientific work had been previously carried out to study the morphology of LD bodies and its potential practical application for management of CL. This endeavor has been made to classify LD bodies on the basis of their morphology.

**Objectives** 1) To study the morphology of LD bodies on FNB specimens from lesions of CL 2) Whether there is a correlation between a particular morphology of LD bodies and clinical appearance, course and response to treatment of CL lesions.

**Study design** This is a retrospective non-interventional descriptive case study.

**Setting** Skin department, PAF Hospital, Islamabad.

**Materials & methods** Case files of all the cases of CL treated at PAF Hospital Islamabad between October 2005 & Sept 2008 were scrutinized. Out of these only those cases were selected in which the diagnosis was confirmed on FNB before the start of treatment and FNB was carried out at weekly intervals throughout the course of treatment. Moreover, the clinical photographs and microphotographs of LD bodies

were available for clinical pathological correlation. A total of 34 lesions from 24 patients met these criteria and were therefore included in the study. A total of 126 microphotographs from similar number of FNB smears were available for study. Using these microphotographs, the morphology of LD bodies was studied and correlated with clinical appearance of the lesions. All these lesions were treated with intramuscular or weekly intralesional meglumine antimoniate depending upon the clinical assessment of the severity of the lesions. The course and response to treatment of the lesions with different morphological patterns of LD bodies was studied. The results were compiled and analyzed.

**Results** Five morphological patterns of LD bodies were identified. These included vesicular, granular, intermediate, ghost and fragmented LD bodies. Vesicular LD bodies are generally associated with acutely inflamed lesions and granular LD bodies with subacute and chronic lesions. The lesions with even one year duration were positive for granular LD bodies. Partially homogenized histiocytes containing granular LD bodies are an indication of healing. The intermediate LD bodies are seen in a short transitional period when lesions with vesicular LD bodies are on their way to healing with treatment or due to body's immune response. The ghost LD bodies represent dead/dying vesicular LD bodies whereas fragmented LD bodies represent dead granular LD bodies. The lesions with vesicular LD bodies need aggressive and prolonged treatment whereas lesions with granular LD bodies need less aggressive shorter courses of treatment.

**Conclusion** The lesions of CL having vesicular LD bodies generally require more aggressive treatment for longer periods compared to those with granular LD bodies which reflect a good host immune response and therefore require milder treatment for shorter duration. When vesicular & granular LD bodies are replaced by ghost and fragmented LD bodies, this is the time to stop the treatment. In summary, the study of morphology of LD bodies on FNB is a simple, cost-effective and highly useful tool for deciding not only the nature and duration of treatment of CL but also for its monitoring.

**Key words** Cutaneous leishmaniasis, LD bodies, fine needle biopsy, meglumine antimoniate

#### 4. Misuse of topical steroids in acne

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**Background** Acne is a common problem of the teenage population. Use of corticosteroids both topical and systemic can aggravate or cause acne and hence are not a treatment option in acne vulgaris. The availability of over the counter topical steroids as well as steroids in various cosmetic preparations in the market has led to increased incidence of acne in young adults.

**Objective** To find out the prevalence of use of steroids or steroid containing cosmetic preparations in patients of acne and to see the effect these have on the disease itself as well as other cutaneous side effects.

**Patients and methods** One hundred and seventeen consecutive patients with acne presenting to the department of dermatology, Lahore General Hospital from 1st April, to 31st August, 2008 were enrolled in the study. All cases were recorded on a standard proforma Use of the various pharmaceutical preparations of topical steroids, as well as cosmetic products containing steroids, was documented. The effect of these on the patient's acne, as well as other cutaneous side effects were also recorded.

**Results** Of the 117 patients, 98 were females and 19 males. The ages ranged from 13 to 32 years with a mean age of 21 years. Ninety four of these patients (80.3%) gave history of using a topical steroid either on its own or in combination with a mixture of cosmetic creams (popular four cream mixture). The commonest steroid used was betamethasone valerate 0.5% (64% patients). This was followed by clobetasol dipropionate 0.05%, which was used by 22% patients. Thirty two percent patients had used both. These were recommended by the beautician in 37%, by a quack or dispenser in 28%, by the local doctor in 19% and by a family member or friend in 16%. 46 % percent of patients experienced aggravation of acne, 23% reported improvement while rest showed no change. Only 7 patients had any cutaneous side effects of steroid usage. These were hirsutism in 4 and telangiectasia in 3 patients.

**Conclusion** Use of topical steroid is a common practice in the teenage population suffering from acne. It causes a flare of the disease in a significant percentage of patients. This practice should be discouraged by increasing awareness not only of patients but also of general practitioners and beauticians.

**Key words** Topical steroids, acne

### 5. Diagnostic microscopic features for cutaneous leishmaniasis, other than LD bodies: a study of 35 cases

**Asma Khalid, Ikramullah Khan, Syed Afaq Ahmed**

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**Objective** To delineate the histological features which can help in diagnosis of cutaneous leishmaniasis (CL) other than the presence of LD bodies.

**Place and duration of study** The study was conducted at PIMS, Islamabad from January 2008 to July 2008.

**Material and methods** A total of 35 patients presenting to Dermatology OPD with initial clinical diagnosis of CL were included in this study. Patients with all ages and both sexes were included in the study. Patients already on treatment were excluded. Skin biopsies were taken, stained with hematoxylin and eosin stain (H&E stain) and studied in collaboration with dermatopathologist. Different histopathological findings were recorded and results analyzed.

**Results** Total of 35 cases was studied. LD bodies were found in (43%) of patients. Other histological features helping in diagnosis of CL even in the absence of LD bodies were plasma cell infiltrate (77%), giant cells (34%), granuloma (34%), lymphocyte infiltrate (28.5%), ulcer (17%), epithelioid cells (14%). Epidermal features were non specific. Mixed patterns were also seen.

**Conclusion** LD bodies considered to be diagnostic for CL are found in 43% of patients. Other than history and clinical examination; histological features which can add to the

diagnosis include plasma cells infiltrates, giant cells, epithelioid cells and mixed dermal infiltrate.

**Key words** Cutaneous leishmaniasis, skin biopsy, LD bodies.

### 6. Efficacy and safety of oral methotrexate in chronic eczema

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**Introduction** Eczema is a common skin problem in our society. Sometimes, chronic eczema becomes resistant to the conventional therapies. Although many therapeutic modalities exist, we selected methotrexate (MTX) in a low dose for recalcitrant, chronic eczema cases.

**Objectives** The objectives were to assess the efficacy and safety of low dose MTX in chronic eczema.

**Material & methods** The study was carried out in the Dermatology Department Unit-I, Mayo Hospital, Lahore, for one year duration with sixty patients of chronic eczema, using purposive nonprobability sampling technique. Severity of eczema was assessed using Eczema Area and Severity Index (EASI). A reduction of 50% or more in EASI score, after three months of treatment/ intervention, was considered as effective treatment. Patients in the study group were administered 0.1 mg/kg body weight of MTX once weekly for three months. Patients of control group were given placebo in the form of folic acid 5 mg tablets. The safety of MTX was judged by clinical and laboratory evaluation of patients on weekly follow-up.

**Results** All the patients showed a reduction of 50% or more in EASI score whereas none in the control group had similar reduction. The clinical & laboratory evaluation of the patients on MTX showed no abnormality, signifying methotrexate's safety in the dose used.

**Conclusions** Methotrexate proved to be an effective and safe modality of treatment.

**Key words** Methotrexate, chronic eczema, eczema area and severity index

### 7. Stevens-Johnson syndrome/toxic epidermal necrolysis - an observational study

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**Introduction** Stevens-Johnson syndrome (SJS) and its severe variant toxic epidermal necrolysis (TEN) are potentially life threatening cutaneous reactions to noxious stimuli. Prognostically, more morbidity than mortality is associated with SJS/TEN.

**Objectives** To present the pattern of morbidity, associated complications and causative factors in individual cases of SJS.

**Patients & methods** Thirty patients, suffering from SJS/TEN, of any age and either gender, were included in the study. SPSS version 11 was used for analysis of statistical data.

**Results** Pain and gastrointestinal involvement was seen in 100% (n=30) of patients. Mortality was found to be 13.3%. Infection, total morbidity score, respiratory system involvement and cardiac involvement were each significantly associated with outcome. Significance could not be established between area of epidermal detachment as an independent variable and either patient outcome or duration of hospital stay. While the causative drugs remained unknown in 26.67% cases, the most common identifiable drug was trimethoprim-sulphamethoxazole in 13.33%.

**Conclusions** The mortality rate in this study (13.3%) conformed to the international figures for combined SJS/TEN (14%). Cardiac and respiratory system involvement, development of wound infection and a high total morbidity score was significantly associated with a fatal outcome. Efficacy of systemic corticosteroids in the treatment of all degrees of disease severity remained debatable as no alternative therapy was employed.

**Key words** Stevens-Johnson syndrome, toxic epidermal necrolysis, morbidity, mortality.

### 8. Beliefs & perceptions about laser hair removal amongst students of a private medical college in Islamabad

**Farid-ur-Rehman, Nadeem Ahmed Niazi**

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**Objectives** To determine the extent of misconceptions about laser hair removal amongst undergraduate medical students.

**Patients and methods** The students of Foundation University Medical College of the first four year classes were included in the study. These students completed a specially designed questionnaire.

**Results** A total of 345 students participated in the study. The age range was from 17-21 years. The male to female ratio was 1:1.75. With respect to the side effects of laser hair removal, 72% believed that laser treatment is harmful to skin, 68% believed that laser treatment causes skin cancers, 64% believed that laser treatment causes eye damage and 10% believed that laser treatment is extremely painful. On the issue of laser hair removal, 19% believed that laser treatment involves the use of a fine needle, 84% believed that laser hair removal is more effective than waxing of hair, 48% suggested that white hair can also be treated by laser, 11% suggested that laser hair removal involves a single treatment session and 9% suggested that laser hair removal alone is sufficient in a female with irregular menstrual cycle.

**Conclusions** Misconceptions about laser hair removal prevail amongst our undergraduate medical students. An education program on laser hair removal is needed to improve their knowledge about this therapeutic option.

**Key words** Laser hair removal, beliefs, perception

### 9. Lip leishmaniasis: no more a rare entity

**Arfan ul Bari**

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**Background** Cutaneous leishmaniasis (CL) may appear at unusual sites or present with atypical morphologies. Lip is considered one of the unusual sites for the diseases to occur.

**Aims of the study** The aim of this case series was to explore whole clinical spectrum of CL occurring on lips.

**Patients and methods** The study was carried out in Combined Military Hospital, Muzaffarabad (The capital city of Pakistan administered area of Jammu & Kashmir) from January, 2006 to March, 2008. Patients having lesions primarily on lips and diagnosed as cutaneous leishmaniasis, irrespective of age and sex were included in the study. All those cases with primary lesion in perioral region or elsewhere over face and secondarily involving lips were excluded. Various demographical features and clinical patterns of the lesions were recorded in all cases and subsequently categorized accordingly. Descriptive statistics were used for analysis.

**Results** Thirty three cases of lip leishmaniasis were encountered. Male to female ratio was equal. Twenty eight had solitary lesions which were restricted only to lips in twenty patients. Morphological patterns included: furunculoid (7), cheilitis (5), psoriasiform (4), nodular (4) chancriform (3), perleche (3), kissing ulcers (2), fissure (1), keloidal (1), erysipeloid (1), mucocutaneous (1) and verruciform (1).

**Conclusion** Lip involvement in CL is no more uncommon now and in case of lip lesions, CL should be included in the differential diagnosis especially in endemic areas of the disease.

**Key words** Cutaneous leishmaniasis, lip leishmaniasis, atypical cutaneous leishmaniasis, unusual cutaneous leishmaniasis.

## 10. Spectrum of skin diseases in school going children

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**Background** Little information about the frequency of different skin conditions is available in school going children of Pakistan. In developing countries like Pakistan these dermatoses are a significant cause of abstinence from school.

**Objective** To measure the burden and relative frequencies of skin diseases in school going children.

**Study Design** Descriptive study

**Place of study** School going children presenting to Dermatology OPD, Pakistan Institute of Medical Sciences.

**Material and methods** A total of 792 students aged 4-12 years of either sex and all socioeconomic groups were included in the study. They were clinically diagnosed by a senior postgraduate resident and consultant dermatologist.

**Results** Out of 792 school going children the most common disorder was scabies 41.9% followed by impetigo 11.99%, folliculitis 7.45%, papular urticaria 5.7%, atopic dermatitis 5.7%, seborrheic dermatitis 4%, urticaria 3.2%, abscess 2.5%, tinea capitis 2.1%, pityriasis alba 2%, warts 2%, chicken pox 1.6%, tinea corporis & vitiligo 1%, infected wounds, miliaria rubra & allergic contact dermatitis 0.75% each, pityriasis versicolor and hair fall 0.5% each, tinea faciei, molluscum contagiosum, cellulitis, perioral dermatitis and lichen planus 0.37% each, psoriasis, ecthyma, nevus anemicus, postinflammatory hyperpigmentation and non-specific pruritus 0.25% each, herpes simplex, chronic bullous dermatosis of childhood, measles, viral exanthem, keratoderma, keratosis pilaris, oral thrush, nevi, leishmaniasis and angioedema 0.13% each.

**Conclusion** In developing countries like Pakistan, scabies and bacterial infections are quite common. Health education should be given to school children along with improvement of hygienic condition may help reduce the frequency of these preventable dermatoses.

**Key words** Spectrum, dermatoses, frequency, school going children.

## 11. Hepatic enzymes in type 2 diabetes

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Seventy six patients classified as having type 2 diabetes, mean age 56.7 years were enrolled for the prevalence of abnormal aminotransferase (AST and ALT) activities. 45 patients used insulin in addition to diet and hypoglycemic drugs. None of the patients had known chronic liver disease. ALT (48%) was more frequently elevated than AST (25%). Elevated aminotransferases were twice the upper limit of normal in majority of the patients.

**Key words** Type 2 diabetes, hepatic aminotransferases.

## 12. Cutaneous leishmaniasis; another aspect

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**Background** Complications like ugly scarring is a common sequel of cutaneous leishmaniasis (CL). We have observed another complication like lymphoedema in our patients in this chronic illness.

**Objectives** The main objective of this study was to determine the incidence of secondary lymphoedema in leishmaniasis of lower legs and feet.

**Methods** This study was conducted in the department of Dermatology Bolan Medical Complex Hospital, Quetta and two private clinics one in Quetta and the other in Pishin from 1st February, 2008 to 12th September, 2008. Out of a total number of 1920 patients of leishmaniasis registered over this period, 567 patients had CL of the legs and feet were included in the study and assessed for the presence of secondary lymphoedema of the involved limb. Investigations performed were slit skin smear for LD bodies, fine needle aspiration cytology (FNAC), peripheral blood smear for microfilariae and Doppler ultrasonography.

**Results** Out of the total number of 1920 patients, 567 (29.53%) had leishmaniasis of the lower legs and feet and out of these 157 (27.68%) patients developed lymphedema of the affected limbs. Among these 157 patients, 76 (48.41%) had mild edema, 52 (33.12%) had moderate edema and 29 (18.47%) patients had severe edema. Over a six weeks follow up period, edema persisted in 43% of the patients in spite of successful treatment of CL with injectable antimony therapy.

**Conclusion** CL can lead to lymphedema of the lower legs and feet and has to be considered while enlisting the causes of secondary lymphedema.

**Key words** Cutaneous leishmaniasis, lymphoedema

## 13. Surgical therapy of vitiligo: current status

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Vitiligo is a condition that presents as sharply demarcated white macules. It affects 1%-2% people of all races regardless of sex and age. Although the disease does not have any systemic complications, it is of great cosmetic concern, particularly in darker skinned individuals, where it creates psychological problems. In vitiligo, there is a partial or total destruction of melanocytes, initially only of the epidermis, and later even of the hair follicles which act as a reservoir for providing melanocytes during repigmentation. Hence, in patients with vitiligo, the existing melanocytes need to be activated. Medical therapies are the primary treatment; however, there are some patients refractory to medical treatment. In such patients, surgical therapies can be used either alone or in conjunction with medical therapy to achieve repigmentation provided the disease is stable. Various surgical procedures have been designed with the following aims:

- 1) Introduction of artificial pigments into the lesions for permanent camouflage e.g. tattooing.
- 2) Removal of the depigmented areas forever, e.g. excision with primary closure, and covering with thin Thiersch's graft.

3) Repopulation of the depleted melanocytes by various grafts e.g. ultra-thin grafts, suction blister and miniature punch grafts, non-cultured epidermal cell suspension or transplantation, and epidermal and melanocyte cultures.

4) Therapeutically wounding the lesion to stimulate the melanocytes from the periphery and the black hair follicles to proliferate, migrate and re-pigment the lesion, e.g. therapeutic dermabrasion, laser ablation, cryosurgery (liquid nitrogen spraying), needling, and local application of phenol or trichloroacetic acid.

**Key words** Vitiligo, dermabrasion, laser ablation, needling, grafts.

#### 14. Teledermatology in Pakistan

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The use of communication technology to facilitate the provision of health care for persons with skin disease is known as teledermatology. Changing patients trends, the shortage of dermatologists, and technological facilities are driving interest in teledermatology. Consumers (patients) are more interested to obtain rapid access to specialist advice and are seeking the convenience in health care as they enjoy in other service industries. Dermatologists are in short supply and are geographically maldistributed i.e. clustered in urban areas resulting in a lack of access to care for patients in many parts of the country. Technological advances over the last decade have transformed the internet, digital cameras, and videophones from expensive products into widely available consumer-grade appliances. These factors present a real opportunity to develop teledermatology into an integral part of the health care system.

**Key words** Teledermatology.

#### 15. Relative discriminatory value of individual biopsy features in lichen planus

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**Background** Lichen planus (LP) is a cell-mediated immune response of unknown origin. It is a subacute chronic dermatosis, flat-topped, papular, pruritic eruption, characterized by its violaceous color polygonal shape and sometimes fine scales. The histopathological features are not studied in detail in the past.

**Objective** To study the frequency of individual histopathological features of lichen planus and their discriminative value.

**Study design** Prospective study.

**Place and duration of study** This study was carried out at Dermatology Department of Pakistan Institute of Medical Science in collaboration with Pathology Department, from January 1, 2008 to August 1, 2008.

**Material and methods** Total of 50 adult patients of both sexes was included in the study. All were clinically diagnosed with LP and their histopathological features were studied. Biopsy specimen was stained with hematoxylin and eosin (H&E) staining and analyzed by consultant dermatologist and histopathologist. Findings were recorded and analyzed.

**Results** The most frequent features were hyperkeratosis 94%, band-like inflammatory infiltrate 70%, pigmentary incontinence 36%, acanthosis 26%, saw tooth rete ridges 26%, basal cell liquefaction 16%, focal hypergranulosis 12%, Max-Joseph clefts 12%, Civatte bodies in dermis 10% and epidermis 8%, with certain rare features like fibrosis 16%, atrophy 10%, periappendageal inflammation 6%, perivascular inflammation 6%. With following atypical features were also observed in few cases like collagen damage 2%, parakeratosis 2%, orthokeratosis 2% and spongiosis 2%.

**Conclusion** Despite of the common diagnostic features of LP like hyperkeratosis, band-like infiltrate, pigmentary incontinence, acanthosis, saw tooth rete ridges and basal cell liquefaction, other histopathological features should also be considered as they are helpful in diagnosis of LP and cannot be merely ignored.

**Key words** Lichen planus, histopathological features.

### **16. Lycopene protects against biomarkers of photodamage in human skin**

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Photodamage is believed to be partly mediated by oxidative stress. We therefore, examined the ability of lycopene, a potent carotenoid antioxidant, to protect against biomarkers of UV-induced damage, including changes in the dermal extracellular matrix, UV-induced erythema and mitochondrial DNA damage. 20 healthy females (mean age 33 yrs, range 21-47, skin type I/II) participated in a randomized controlled nutritional trial. They took either 55 gms tomato paste (Tp, containing 16 mg (lycopene) in olive oil (Oo) or Oo alone, daily for 12 weeks. Biopsy samples were taken from unexposed and UV (3x MED) exposed buttock skin, before and after supplementation for immunohistochemical expression of MMP-1, fibrilin-1, procollagen1. Before supplementation, UV-induced significant increase in MMP-1 (mean $\pm$ SEM: baseline 12.20 $\pm$ 1.05 vs 16.4 $\pm$ 1.12 cells/hpf post-UV,  $p=0.001$ ). A reduction in fibrilin 1 (baseline 3.42 $\pm$ 0.14 vs 3.01 $\pm$ 0.18 post-UV,  $p=0.03$ ). No significant change in pro-collagen 1 was seen. After 3 months supplementation, UV-induced MMP-1 expression was reduced in the Tp group compared to the Oo group (11.44 $\pm$ 0.91 vs 15.3 $\pm$ 1.47 cells/hpf,  $p=0.04$ ); pro-collagen-1 showed a small but significant increase in the post Uv Tp group (2.77 $\pm$ 0.19 vs 3.43 $\pm$ 0.13,  $p<0.05$ ) but not in the Oo group (2.98 $\pm$ 0.24 vs 3.06 $\pm$ 0.3,  $p=0.78$ ); and U-induced reduction in fibrilin expression was abolished post supplementation in both groups. The protective effects of lycopene were also reflected by reduction in U-induced dermal mtDNA damage and skin erythema in the Tp group compared with the Oo group,  $p<0.05$ . Tomato paste protects against acute, potentially long term aspects of photodamage, supporting their mediation by oxidative stress. Further studies indicated the role of lycopene in dietary photo protection.

**Key words** Lycopene, UV-induced damage, MMP-1, fibrillin 1, procollagen 1

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### **17. Cutaneous virilization - diagnostic workup and management**

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Virilization is defined as the presence of male sexual characters in a female. Signs of cutaneous virilization include; severe acne, hirsutism and androgenic alopecia. The most common cause is polycystic ovarian syndrome, which involves 10-30% of females. Other features of this syndrome are irregular menstrual cycle and decreased fertility. It is important that dermatologists should be well aware of the diagnostic criteria both clinical and laboratory, expected complications and various treatment options. In addition this presentation will also briefly discuss other causes of cutaneous virilization.

**Key words** Virilization, hirsutism, PCOS.

### **18. Nails as a window to internal organs**

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Nails are generally neglected as a diagnostic tool for systemic illnesses. Located on the dorsal aspect of the 40% of distal phalanx are complex structures involving three different layers i.e. nail plate, the nail bed, and the eponychium (cuticle). To ascertain whether the nails are normal, softness and flexibility of free edge, shape and colour quality of paronychia tissue, and growth rate should be noted. Nail carries the medical record of previous six months. Careful examination of the nails can help the clinician detect a number of general and specific factors. These include overall vitality, inner emotional state, occupations and hobbies, medical history, nutritional status, cardiovascular, renal and hepatic functions, rheumatic conditions, circulation, and dermatological problems.

In this prospective clinical study carried out at Nawaz Sharif Social Security Hospital, Lahore, from Jan 2008 to June 2008, 50 patients each of diabetes mellitus, hypertension, ischemic heart disease, renal failure and hepatitis C were included. All the twenty nails of each patient were examined by a trained dermatologist. The changes in nail plate regarding softness, texture, shape and colour were noted. Quality of paronychia tissue was also recorded.

**Key words** Nail changes, diabetes, renal disease, hepatitis C

### 19. Epidermolysis bullosa pruriginosa a case report

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Epidermolysis bullosa pruriginosa is a rare, genetic mechnobullous disorder usually appearing in the first decade of life. It is characterized by recurrent crops of severely pruritic hypertrophic papules and lichenified plaques along with trauma induced blisters leading to scarring, milia, nail dystrophy usually localized to limbs. The genetic defect occurs due to mutations in COL7A1 gene that encodes for the protein type VII collagen. The treatment aims at relieving the pruritus. We present a 38-year-old female with sites of involvement not reported before.

**Key words** Epidermolysis bullosa pruriginosa, pruritus, milia.

### 20. Klippel-Trenaunay syndrome with venous varicosities and isolated arterial malformations: a case report

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Klippel-Trenaunay syndrome (KTS) is a rare entity mainly presenting in pediatric age group. This congenital malformation is characterized by a triad of vascular malformations of the skin,

abnormalities of venous and lymphatic system and limb enlargement due to hypertrophy of soft tissue and bone. We report here a case of KTS with all the above features and additional isolated arterial malformations. Patient was treated with double-frequency Nd:YAG laser and has shown marked improvement.

**Key words** Klippel-Trenaunay syndrome, venous varicosities, AV malformation, port-wine stain.

### 21. Lichen planus/lupus erythematosus overlap with hypothyroidism: a case report

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Lupus erythematosus (LE) and lichen planus (LP) are usually seen as individual entities. The overlap comprises group of patients who have clinical, histological and immunopathological characteristics of both diseases simultaneously. This syndrome is so infrequent as to limit the clinical cases for study and has been associated with certain other disorders e.g. vitiligo, pemphigus foliaceus, Reynold's syndrome, Hashimoto's thyroiditis, thymoma and cardiac tamponade. We report a case of LE/LP overlap associated with hypothyroidism. The clinical and histological evaluation of lesions on scalp and trunk was consistent with the diagnosis of LE and that of oral cavity with that of LP. On investigating the swelling in front of neck, hypothyroidism was found. To our knowledge, LE/LP overlap in association with hypothyroidism is being reported for the first time in the literature.

**Keywords** Lupus erythematosus, lichen planus, hypothyroidism

### 22. Papillon-Lefevre syndrome: a case series

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Papillon-Lefevre Syndrome is an autosomal recessive disorder, characterized by redness and thickening of palms and soles, associated with

periodontosis and frequent pyogenic infections of skin and internal organs. We report a case series of 4 patients who presented with palmoplantar keratoderma and periodontitis, but one girl had additional dental sinus formation. A 5-year-old boy also had liver abscess formation.

**Key words** Papillon-Lefevre syndrome

### 23. Papillon-Lefevre syndrome: a case report

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This is case report of a 17-year-old male who presented in the OPD with complaints of red, thick, scaly lesions on hands, feet, knees, elbows and buttocks since early childhood. Non-development of teeth and autoextraction of few erupted deciduous teeth by the age of 7 years. In family history one sister had similar complaints to a milder extent. Examination revealed hyperkeratotic, erythematous, scaly skin on palms and soles, extending to dorsal aspect along with right hand in flexion contracture. Extensor aspect of forearms, elbows, knees, sacrum and buttocks having similar lesions. Scalp hair was sparse. Nails were thick, brittle, curved with subungual hyperkeratosis and transverse grooves on some nails. Investigations i.e. CBC, urine examination, renal functions, liver functions and serum lipid profile were within normal range. There was normal abdominal ultrasound. X-ray mandible AP and lateral views showed poorly developed hypoplastic mandible with only two teeth. X-ray PNS showed right maxillary haziness. X-ray both hands and feet revealed disuse osteoporosis and fibrous contracture. He was diagnosed as a case of Papillon-Lefevre syndrome and managed symptomatically.

**Key words** Papillon-Lefevre syndrome.

### 24. Atypical mycobacterial infection - a case report

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Atypical mycobacterial infections are a rare group of diseases which occur more frequently in immunocompromised hosts. They lead to a variety of cutaneous lesions such as papules, nodules, pustules, draining sinuses and ulcers.

We report a 45-year-old male who presented with multiple draining sinuses on both arms and chest. He had a history of swimming in a local water park. The patient did not respond to antituberculous treatment given to him for 9 months. A fine needle aspiration cytology revealed atypical cells of tuberculoid origin and the biopsy revealed Langhan giant cells and lymphocytic infiltrate while mycological culture was negative. PCR confirmed the presence of atypical mycobacteria.

**Key words** Atypical mycobacterial infection

### 24. Cutis laxa: a novel case

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An 18-year-old male patient, born of consanguineous marriage with history of laxity and wrinkling of skin over the face, abdomen, intertriginous areas. Skin biopsy revealed many granulomas and hence diagnosis of tuberculosis. He received 3 courses of ATT. He received a myriad of other drugs as well. Revised biopsy showed collagen fibres were malformed and there was necrosis. Many macrophage and Langhan's giant cells were seen. No definite granuloma was seen.

**Key words** Cutis Laxa, collagen disease, tuberculosis, Langhan's giant cells.

### 25. Giant cell tumour of the tendon sheath: a case report

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Giant cell tumour of the tendon sheath is a rare benign tumour occurring mainly on hands, consisting of nodular proliferation of histiocyte-like cells with scattered giant cells. We report the case of a 47 year old female who presented with yellowish white painless nodule on dorsal aspect of thumb. Histopathology of the lesion showed lobules surrounded by dense collagen. Within the lobules there were epithelioid and spindle cells with scattered giant cells. These findings were consistent with the diagnosis of giant cell tumor of tendon sheath. The lesion was excised.

**Key words** Giant cell tumour, tendon sheath

**27. Congenital adrenal hyperplasia: a case report and review of literature**

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Congenital adrenal hyperplasia (CAH) is an inherited disorder characterized by a deficiency of one of the enzymes necessary for adrenal steroidogenesis. In 95% cases, 21 hydroxylase is the deficient enzyme leading to defective synthesis of adrenal hormones. As a result there is salt wasting and virilization in neonatal period amongst three quarter of the cases. Rest of patients do not show salt wasting. We present a case of simple virilizing type of classical CAH without salt wasting having ambiguity of genitalia along with clitoromegaly since birth and hirsutism since early childhood

**Key words** Congenital adrenal hyperplasia, hirsutism.

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