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Sexually transmitted infections in adolescents

Cheng SY, Lo KK.

HK J Paediatr (new series) 2002;7:76-84.

Adolescents, aged 13 to 19 years old, are prone to sexually transmitted infections (STIs). The reasons are multifactorial, including psychosocial development during this transitional stage, socio-cultural changes, cervical ectopy in the female, and limited access to medical care. Asymptomatic carriage occurring in, for example, genital human papillomavirus, herpes simplex and HIV infection also contributes.

The incidence of STIs increased from 394 to 976 for adolescents attending the Social Hygiene Service from 1991 to 2000. This increase was attributed mainly to a rise in the incidence of non-gonococcal urethritis and non-specific genital infection. These infections are mainly caused by chlamydia. A gradual increase in the incidences of genital wart and early syphilis was found too. The incidence of gonorrhoea showed an initial decline in the mid-nineties and a rising trend after 1998. The incidence of genital herpes remained stable over the same period.

As the risk for STIs transmission is mainly behavioural, preventive efforts should focus on modification of risk behaviours. These could be undertaken in school, community and clinic setting to ensure comprehensive coverage. Sexual health education and behavioural intervention programs should aim at avoiding risky sexual exposure and therefore infections. Early help-seeking behaviour and treatment should also be encouraged.

Perianal ulceration in a 'healthy' Chinese man with disseminated tuberculosis

Ho MH, Lee KC, Chong LY.

J Dermatol 2002;29:366-70.

Orificial tuberculosis (OTB) is a true cutaneous tuberculous infection and presents as painful ulcers around orifices draining the active tuberculous foci in patients with advanced tuberculosis.

The authors presented a 72-year-old Chinese man with a painful 15 x 12 cm perianal ulcer for 10 years. He was amazingly well apart from having non-insulin dependent diabetes. Skin biopsy showed loose histiocytic infiltrate without definite granuloma formation at the ulcer edge. Numerous acid-fast bacilli (AFB) were found at the ulcer floor. Polymerase chain reaction (PCR) technique was applied to the purified

DNA to identify the nature of the mycobacterium found. *Mycobacterium tuberculosis* was detected and anti-tuberculous drugs were started promptly. The ulcer largely resolved three months later. The diagnosis was later confirmed by skin tissue and urine culture.

OTB occurs because of autoinoculation of the AFB from internal sources like the lungs, gastrointestinal and urinary tract. For the reported patient, the source was the lungs, with secondary spread to the urinary tract, and then by autoinoculation of urine or swallowed sputum to the perianal area. The use of PCR technique allows rapid diagnosis of cutaneous tuberculosis and early treatment. However culture is still necessary for confirmation and antibiotic sensitivity testing.

A prospective epidemiological study on tinea pedis and onychomycosis in Hong Kong

Cheng SY, Chong LY.

Chin Med J 2002;115:860-5.

A cross-sectional survey was conducted to study the epidemiology of foot diseases. Nineteen public dermatologists and 48 private practitioners participated in the study. Patients paying a visit to clinics were randomly invited by participating doctors to have a clinical examination of their feet. For those in the public sector, mycological study would be performed if indicated.

Totally 1014 patients were recruited. The percentage of patients having foot disease, fungal infections, tinea pedis and toe nail onychomycosis were 50.7%, 26.9%, 20.4%, 16.6% respectively. The male patients and elderly patients were statistically more likely to be affected, except for the effect of gender on onychomycosis which showed no difference between the sexes. The most common predisposing factors for foot diseases, fungal infection and onychomycosis were vascular disease, diabetes mellitus and obesity.

Among patients with fungal infection, 38.5% of them had tinea pedis alone, 24.1% had onychomycosis alone, while 37.4% had both. Totally 115 skin and 137 nail specimens were collected. Overall 38.9% of specimens were positive on microscopy or culture. Dermatophytes, especially *Trichophyton rubrum*, were most frequently isolated.

The authors concluded that foot diseases, especially tinea pedis and onychomycosis were prevalent among the local patients and worth a more active management approach.

An *in vivo* study comparing the efficacy and complications of diode laser and long-pulsed Nd:YAG laser in hair removal in Chinese patients

Chan HH, Ying SY, Ho WS, Wong DSY, Lam LK.

Dermatol Surg 2001;27:950-4.

Both 800 nm diode laser and the long-pulsed 1064 nm Nd:YAG laser are suitable for hair removal in dark-skinned people. To compare their effectiveness and side effects, fifteen Chinese women underwent a single session of laser hair removal from their axillae or legs with diode laser one side and Nd:YAG laser on the other. Subjective assessment using a visual analog scale and objective photographic assessment by two independent clinicians were used.

A greater immediate pain and longer laser time were associated with long-pulsed Nd:YAG laser. Hypopigmentation was noted in one patient on both sides at week six and disappeared at week 36. The average subjective hair regrowth rates were low and similar for the two lasers at week six. However significant subjective regrowth was noted in most patients at week 36. There was no objective difference in hair regrowth between the two lasers at week 36.

Given the effect of temporary hair reduction, multiple treatment sessions were necessary to achieve a satisfactory result. This also implied that the greater immediate pain associated with long-pulsed Nd:YAG laser would affect patients' acceptability. Future work should look at the long-term outcome of these two lasers and their use on sun-exposed areas.

Skin colonization by *Malassezia* species in neonates: a prospective study and relationship with neonatal cephalic pustulosis

Bernier V, Weill FX, Hirigoyen V, et al.

Arch Dermatol 2002;138:215-8.

In this article, the prevalence of and the factors associated with cutaneous *Malassezia* colonization in healthy full-term newborns were studied, together with its association with acne-like cephalic pustulosis.

A total of 102 healthy neonates and their mothers were initially recruited. Swabs were taken from the mothers and babies within five days after birth and three weeks later. The specimens were sent for microscopy

and culture. The babies were examined for the presence and severity of cephalic pustulosis.

Swabs obtained within five days of birth showed that 11 (11%) neonates and 36 (35%) mothers were positive for *Malassezia*, predominantly *Malassezia sympodialis* and *globosa*. For the samples taken three weeks later, 29 (52%) of 56 neonates and 18 (32%) of 56 mothers were found positive for exclusively *Malassezia sympodialis* and *globosa*. *Malassezia* colonization was found not to be associated with breastfeeding, social class or routine skin care. However it was positively associated with the severity of cephalic pustulosis. *M. sympodialis* was also isolated from some of the pustules.

This study showed that *Malassezia* colonized neonates early in life and their mothers seemed to be the reservoir for colonization. The association between *Malassezia* colonization and neonatal cephalic pustulosis was also demonstrated.

Nickel contact hypersensitivity in children

Silverberg NB, Licht J, Friedler S, Sethi S, Laude TA.

Pediatr Dermatol 2002;19:110-3.

Nickel allergic contact dermatitis is a common dermatosis. Its prevalence has risen for the past ten years, probably resulting from increased environmental nickel exposure. Fifteen male and fifteen female paediatric patients (aged 1 to 18 years old, average 7.9 years) with either umbilical or wrist dermatitis, or a family history of nickel allergic dermatitis were examined in this study. All subjects had a positive patch test to 5% nickel sulfate that was of the papular type, and 50% had id reaction as firm papules on the upper arms. Twenty-four patients (80%) had umbilical dermatitis, the commonest pattern, and none had earlobe involvement. Twenty-five patients (80%) had a family history while it was absent in two and unknown in three. Four had asthma and 18 had atopic eczema.

They found that young children could develop allergic dermatitis to nickel. Nickel allergy was not found to correlate with atopic diathesis. A positive family history and presence of umbilical dermatitis seemed to predict nickel contact allergy, and enable early intervention. Early patch testing to nickel is therefore indicated for children if clinically suspected. Treatment includes nickel avoidance and topical corticosteroids.

Amyopathic dermatomyositis: a review by the Italian group of immunodermatology

Caproni M, Cardinali C, Parodi A, et al.

Arch Dermatol 2002;138:23-7.

Amyopathic dermatomyositis is defined as the presence of biopsy-proven classic cutaneous features of dermatomyositis for at least two years, with minimal or no electromyographic (EMG), muscle biopsy and magnetic resonance imaging (MRI) evidence of myopathy.

Thirteen patients with amyopathic dermatomyositis (mean age: 53, range: 19-86), representing 8.2% of 157 patients with dermatomyositis seen over a 10-year period in centres in Italy were reviewed respectively. The results were compared with two other published series.

The commonest sign was periorbital violaceous erythema in nine patients (69%). Gottron papules and periungual telangiectasias were found in about 50%. Positive antinuclear antibodies were noted in seven patients, anti-Ro and antimitochondrial in one each, oesophageal or cardiopulmonary involvement in none. Pruritus was uncommon (three patients).

Compared with a Chinese series (25%), the percentage of amyopathic dermatomyositis was low (8%) in this study. Patients were predominantly female (F:M=12:1) while men predominated in the Chinese series. None had internal malignancy in this study whereas 60% had malignancy, nasopharyngeal carcinoma being commonest, in the Chinese series. The lack of clinical muscle disease, rarity of serum immunologic markers and absence of malignancy suggested a good prognosis in Mediterranean patients.

The authors also found that some patients without clinical weakness or raised muscle enzymes did have subclinical myositis when investigated thoroughly with EMG, muscle biopsy, ultrasound or MRI. Non-invasive procedures such as ultrasound and MRI might be superior to EMG or muscle biopsy in this aspect.

Sonographic findings in a series of rapidly involuting congenital hemangiomas (RICH)

Rogers M, Lam A, Fischer G.

Pediatr Dermatol 2002;19:5-11.

Rapidly involuting congenital haemangiomas (RICH) looks like infantile haemangiomas but with vital differences: they are fully developed at birth, appear as red plaques or tumors, and rapidly regress with complete

resolution in the first year of life, leaving an atrophic area. Ten patients with RICH were studied with sonography.

Sonography was performed on these patients with similar findings: lesions were mostly limited to the subcutaneous fat, uniformly hypoechoic, diffusely vascular and traversed by multiple vascular channels. Some channels were compressible and had a venous flow signal while some showed low resistant arterial flow.

These sonographic findings were consonant with the histological features of RICH and were different from those of infantile haemangiomas. The lobulations in infantile haemangiomas were not seen in RICH.

Therefore the clinical presentation and sonographic findings enable a confident diagnosis of RICH to be made, reassure the parents and allow an observation approach despite its alarming clinical appearance.

The use of the dermatoscope to identify early melanoma using the three-colour test

MacKie RM, Fleming C, McMahon AD, Jarrett P.

Br J Dermatol 2002;146: 481-4.

The objective of this study was to see if the use of dermatoscope could help to reduce the number of unnecessary excision of benign melanocytic pigmented lesions. It was conducted in a specialist pigmented lesion clinic. Patients were referred by their primary care physicians because of suspicious melanocytic lesions. Those lesions considered by dermatologists requiring excision on clinical grounds were studied. The medical history, clinical features on physical and dermatoscopic examination were included in the analysis.

In the first test series consisting of 74 excised lesions, 37 were melanomas and 37 were melanocytic naevi. A second series of 52 lesions consisting of 32 melanomas and 20 melanocytic naevi were used to validate the conclusions drawn from the first series. In both data sets, the most influential predictor of melanoma was the occurrence of three or more colours on dermatoscopic examination. The sensitivity and specificity of this finding for melanoma against benign naevus were 92% and 51% respectively. The author concluded that the dermatoscopic three-colour test was a straightforward procedure that could prioritize patients for biopsy and reduce unnecessary surgery. One must note that the positive predictive value of a test depends on the prevalence of the disease in the population. No doubt the experience of the dermatologist performing the dermatoscopic examination is also relevant.

Comparison of two surgical approaches for treating vitiligo: a preliminary study

Özdemir M, Çetinkale O, Wolf R, et al.

Int J Dermatol 2002;41:135-8.

This is a controlled trial to compare the effectiveness and complications of suction blister against thin split-thickness grafting technique for the treatment of vitiligo. Twenty patients, aged 10 to 49, having generalized vitiligo without any treatment for at least one year were enrolled. Vitiliginous sites were chosen from covered area on the trunk. Donor sites were chosen from the gluteal region.

Three suction blisters approximately 0.8 cm in diameter were created using a vacuum extractor apparatus at the recipient area. They were denuded by scissoring off the roof (A1, A2, A3). A fourth erosion (A4) of similar size was created using a silver knife. At the donor site, an epidermal graft was obtained from a suction blister. Two more grafts were taken using a small dermatome.

A1 was left for control. A2 was covered with the epidermal graft obtained from suction blistering. A3 and A4 were each covered with a thin split-thickness skin graft. Patients were evaluated at the end of 3 months. The A4 site showed repigmentation in 90% of patients ($p < 0.001$). The thin split-thickness skin graft was therefore more effective than suction blister method in treating vitiligo. However, this was a small study with short follow-up and side effects like Koebner phenomenon were seen at the donor sites.

Evaluation of dietary intake of vitamin E in the treatment of atopic dermatitis: a study of the clinical course and evaluation of the immunoglobulin E serum levels

Tsourelis-Nikita E, Hercogova J, Lotti T, Menchini G.

Int J Dermatol 2002;41:146-50.

This single-blind placebo-controlled pilot study aimed to evaluate whether oral vitamin E supplementation (400 IU/day) had any beneficial effect on subjective symptoms and serum IgE levels in patients with atopic dermatitis involving 30-70% of the body surface area.

Ninety-six subjects (aged 10-60, M:F=2:1) were enrolled. Fifty were given vitamin E daily for eight months while the remaining 46 received a placebo. During this study periods, all subjects were only allowed

to use moisturizer. All other treatments including topical steroids were stopped. Blood biochemistry and serum IgE levels were monitored regularly. At the end of the study, patients were asked about any subjective benefits by questionnaire.

The majority of patients receiving vitamin E showed great improvement or near complete remission while the majority of patients taking placebo worsened. There was also a greater drop in serum IgE levels in patients responding to vitamin E. The authors suggested that vitamin E could be used in the treatment of atopic dermatitis. Nevertheless, no formal statistical analysis of the data was made and an objective scoring system was not employed in evaluating the response. The long-term efficacy and side effects were not addressed too. Therefore the findings from this study still need further validation.

Oral zinc sulphate in the treatment of recalcitrant viral warts: randomized placebo-controlled clinical trial

Al-Gurairi FT, Al-Waiz M, Sharquie KE.

Br J Dermatol 2002;146:423-31.

This is a single-blind randomized placebo-controlled trial involving oral zinc supplementation in the treatment of recalcitrant viral warts in Iraq. Eighty patients with recalcitrant viral warts resistant to conventional treatments were recruited. Each had more than 15 warts. Forty patients were randomized to receive 10 mg/kg/day of zinc sulphate while the rest received placebo for two months. They were then followed up for six months.

Both groups were similar in terms of their demographic data and all were found to have low pre-treatment serum zinc levels. Only 23 patients from the treatment group and 20 patients from the placebo group completed the study. Twenty out of the 23 patients in the treatment group had a complete clearance within two months while none of the placebo group patients responded. Only mild gastrointestinal upset was reported with zinc sulphate. The authors concluded that zinc sulphate seemed to be a highly effective treatment for recalcitrant warts. However, the definition of recalcitrance needs to be clarified. The high drop out rate might have altered the results. The low pre-treatment serum zinc level might warrant future studies of zinc level in patients with recalcitrant wart and the value of zinc supplementation might not be applicable to patients with a normal serum zinc level.