

Journal Watch

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Adult female acne and associated risk factors: Results of a multicenter case-control study in Italy

Di Landro A, Cazzaniga S, Cusano F, Bonci A, Carla C, Musumeci ML, et al.
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Acne is the one of the common diseases in adolescents. However, its prevalence among women aged 25 or above is also not low. Multiple factors have been shown to be associated with adult female acne (AFA). In this multi-centered case control study, the authors aimed at analysing the role of various personal and environmental factors on AFA.

This study was conducted in several dermatological clinics in Italy. Women aged 25 or above with a diagnosis of acne were included while those attending the same clinics without acne were included as controls. Severity of acne was assessed by global score using photographs. Sociodemographic data, past medical history, menstrual history, stress level and food consumption data were collected using standardised questionnaires.

A total of 518 women (248 cases and 270 controls) were included. Most of the cases (58%) had moderate to severe acne, with inflammatory lesions mainly affecting cheek and chin. Personal history of adolescent acne and history of acne in parents and siblings were found to be associated with AFA (OR=5.44 [95% CI=3.43-8.61], 3.02 [95% CI=1.8-5.06] and 2.4 [95%CI =1.46-3.94] respectively). Moreover, no previous pregnancies and hirsutism were also significant risk factors

(OR=1.71 [95% CI, 1.06-2.78] and OR=3.50 [95% CI, 1.42-8.60]) respectively. Finally, being an office worker as compared to unemployed or housewife, having a high or very high level of reported psychological stress, low weekly intake of vegetables, fruits and fresh fish were also shown to be significantly associated with AFA.

Previous studies showed that high BMI and high intake of dairy products were associated with adolescent acne. However, it was not shown in this study. This may indicated a different pathogenesis of AFA as compared to adolescent acne. This study showed that lifestyle factors may play a role in AFA. However, their role should be further evaluated in other studies. Also the conclusion may be affected by the cross-sectional nature of the study, causal relationship cannot be concluded.

Systemic antifungal therapy for tinea capitis in children: An abridged Cochrane Review

Chen X, Jiang X, Yang M, Bennett C, Gonzalez U, Lin X, et al.
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Tinea capitis affects children mostly and systemic antifungal agents are the treatments of choice. However, comparative data on efficacy and safety profile of various antifungal agents is lacking. In this literature review, the authors included all randomised controlled trials (RCTs) up to 2015 conducted in immunocompetent children with

mycologically-proven tinea capitis. Complete cure and adverse events were the primary outcome measures.

A total of 25 RCTs with 4449 participants were included. Both terbinafine and griseofulvin showed similar efficacy on management of tinea capitis caused by mixed *Trichophyton* and *Microsporum* spp. However, terbinafine appeared to be more effective for infections caused by *Trichophyton tonsurans* (RR=1.47, 95% CI = 1.22-1.77) while griseofulvin was better for those solely cause by *Microsporum* spp. (RR=0.68, 95%CI=0.53-0.86). Moreover, several studies revealed that itraconazole and fluconazole also showed similar efficacy as compared to terbinafine and griseofulvin. Finally, both terbinafine and griseofulvin were well-tolerated and most adverse events were mild and reversible.

The authors concluded that both griseofulvin and terbinafine are effective for treatment of tinea capitis. However, further studies are required to evaluate the optimal treatment regime, paediatric formulation, adherence of treatment and patients' self-reported outcome so as to further justify the use of the newer and relatively more expensive treatments like terbinafine and itraconazole as opposed to griseofulvin. Also, this review was limited by the highly heterogeneity of the studies and all the included studies were at high or the risk of bias was unclear in the RCTs.

Comparison of lidocaine/tetracaine cream and lidocaine/prilocaine cream for local anaesthesia during laser treatment of acne keloidalis nuchae and tattoo removal: results of two randomized controlled trials

Greveling K, Prens EP, Ten Bosch N, van Doorn MB.

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Pain is a common side effect of laser therapy to skin. Local topical anaesthetic cream is commonly used to reduce laser-related pain. "EMLA" is one of the most widely used products and contains a

mixture of 2.5% lidocaine and 2.5% prilocaine cream. However, plastic occlusion is needed for its use. Pliaglis is a new topical anaesthetic which contains a mixture of 7% lidocaine and 7% tetracaine cream. It develops a self-occlusive film when exposed to air and does not require plastic occlusion before use.

Two randomised, double-blind, controlled clinical trials with inpatient, split-lesion designs were conducted to provide head-to-head comparison between efficacy of "EMLA" and "Pliaglis". Study A included patients with acne keloidalis nuchae (AKN) (n=15). Study B included patients with black tattoos (n=15). In studies A and B, lidocaine/tetracaine cream was applied on one treatment side and lidocaine/prilocaine cream under plastic occlusion was applied on the other treatment side. In both studies, self-reported pain on a 10-cm visual analogue scale (VAS) scores for patients were recorded. Lidocaine/prilocaine cream show a significant lower pain score with a mean VAS difference in study A of 1.9 (95% confidence interval of 1.0-2.8) and in study B of 0.6 (95% confidence interval of 0.7- 1.9). In study A, adequate pain relief was attained in 13% (n=2) with lidocaine/tetracaine cream vs 73% (n=11) with lidocaine/prilocaine cream (P=0.004). In study B, adequate pain relief was attained in 53% (n=8) with lidocaine/tetracaine cream vs 80% (n=12) with lidocaine/prilocaine cream (P=0.289). Both creams showed mild local reaction only and no significant side effects were found. Hence, lidocaine/prilocaine cream under occlusion is the preferred choice of topical anaesthetic in laser procedure for acne keloidalis nuchae and black tattoo removal.

Statin use and the risk of herpes zoster: a nested case-control study using primary care data from the U.K. Clinical Research Practice Datalink

Matthews A, Turkson M, Forbes H, Langan SM, Smeeth L, Bhaskaran K.
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Statins is a lipid lowering drug and is one of the commonest drugs used worldwide. It decreases the cardiovascular risk of patients. However, there is a hypothesis that it may alter the immune system and may have an immunomodulating effect as it decreases production of isoprenoid phosphates which are required for the activation of Ras-related GTPases. Hence, it may impair T-cell activation and proliferation. Recent reports have found that statins might have a small but significantly increased risk of Herpes Zoster (HZ) among patients from Ontario, Canada and Taiwan respectively.

This study was a matched case-control study to quantify the effects of statin use on the risk of HZ in general population of United Kingdom (UK). Data from primary care and hospitals were used. All patients were ≥ 18 years and followed up between 1 January 2000 and 31 December 2011. The study recruited 144 959 cases of HZ matched to 549 336 controls with reference to age and sex. Patients who had taken statins for more than three months were categorised as the exposure group. Adjusted analysis showed increased risk of HZ with statin exposure (Odds Ratio 1:13; 95% confidence interval 1.11-1.15). A dose-response relationship was found and the risk of HZ was increased with an increased dosage of statin ($P < 0.001$). Risk decreased with time after stopping statins and was consistent with a causal relationship ($P < 0.001$). There was no clear evidence that duration of statin use altered the effect of statins on risk of HZ. There was also no evidence that age modified the effect of statins on risk of HZ. This study supports the hypothesis

that statin may increase risk of HZ. Hence, the authors propose that statin use may constitute an indication for HZ vaccine.

Syphilis incidence among men who have sex with men in China: results from a meta-analysis

Chen G, Cao Y, Yao Y, Li M, Tang W, Li J, et al.
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Syphilis is still a worldwide sexually transmitted infection (STI) with an estimated 12 million people infected each year. Syphilis accounted for 11.7 cases per 100,000 residents in 2009 and had increased by 2.1 times since 2005 in China. Previous studies found that the prevalence of syphilis among men who have sex with men (MSM) in China had increased from 6.8% to 13.5% from 2003-2004 to 2007-2008. The objective of this study was to systematically estimate the incidence of syphilis among MSM in China through meta-analysis. Original articles published in English or Chinese targeting on MSM in Mainland China (excluding Hong Kong, Macau and Taiwan) with a clear descriptions of study design, study location, sample size which estimated the incidence of syphilis sero-convertors and total person-times follow-up were included. All these articles were searched from PubMed, China National Knowledge Infrastructure (CNKI) and Wanfang Chinese database. The studies were also assessed by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) guidelines.

A total of 14 studies (seven English and seven Chinese) were included. The overall incidence of syphilis among MSM in China between 2006 and 2012 was 9.6/100 person-years (PYs) (95% CI 7.0-12.2/100 PYs). Subgroup analysis reviewed that the incidence of syphilis were 38.5/100 PYs (95% CI 28.9-48.1/100 PYs) in Northeast China, 12.1/100 PYs (95% CI 7.0-17.2/100 PYs) in North

China, 11.2/100 PYs (95% CI 0.7-23.1/100 PYs) in Southwest China, 8.9/100 PYs (95% CI 6.5-11.2/100 PYs) in East China, 5.7/100 PYs (95% CI 3.4-8/100 PYs) in South China, and 3.1/100 PYs (95% CI 0.8-5.3/100 PYs) in Northwest China.

This study found that the incidence of syphilis in Chinese MSM is high especially in the Northeast region which concurred with the prevalence of HIV infection in the same region. The authors concluded that it is crucial to integrate syphilis control programmes with HIV control programmes by establishing public health response systems to monitor and control the epidemic of syphilis as well as HIV in key populations in China especially MSM.

Prevalence of *Mycoplasma genitalium* in men with urethritis and in high risk asymptomatic males in Tel Aviv: a prospective study

Gottesman T, Yossepowitch O, Samra Z, Rosenberg S, Dan M.

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Neisseria gonorrhoeae (NG), *Chlamydia trachomatis* (CT), less frequently, *Trichomonas vaginalis* (TV) and recently *Mycoplasma genitalium* (MG) are likely cause of sexually transmitted infection (STI)-related urethritis. The objectives of this study were to determine the prevalence of MG in men with urethritis and in high-risk asymptomatic men attending an STI clinic and the clinical and epidemiological characteristics of MG-associated urethritis in this population. In this cross-sectional study, male patients attending the STI clinic between November 2008 and November 2010 were prospectively enrolled. Cases who had used antibiotics six months before and those who had symptoms of more than three months were excluded. The subjects were classified into two categories: (1) symptomatic who had urethritis

symptoms like dysuria, discharge or penile irritation and their urethral Gram smear showed ≥ 5 polymorphonuclear leukocytes per high-field and (2) asymptomatic cases attending the clinic for STI screening because of high risk behaviours such as multiple sexual partners (>20 life-time sexual partners, new sexual partners or history of prior STI).

A total 259 men were enrolled and 118 (45.5%) were symptomatic, whereas 141 (54.5%) were asymptomatic. The overall rate of MG was 6.6% (17/259); CT was 12.7% (33/259) and NG was 23.1 (60/259). No TV was detected. In the symptomatic group, 74.6% (88/118) detected at least one STI pathogens compared to 8.5% (12/141) in the asymptomatic group, (prevalence ratio [PR] = 8.8, 95% CI 5.1-15.2). The following summarises the STI pathogens in these groups:

Pathogens	Symptomatic (n)	Asymptomatic (n)	Prevalence ratio PR (95% CI)
MG	11.9% (14/118)	2.1% (3/141)	PR = 5.6 (1.6-19)
CT	22.0% (26/118)	5.0% (7/141)	PR = 4.4 (2.0-9.9)
NG	49.0% (58/118)	1.4% (2/141)	PR = 34.7 (8.7-139)

Co-infection was found in symptomatic cases only with 5.9% (7/118) had NG and CT concomitant infection and 2.5% (3/118) had NG and MG dual infection.

In symptomatic MG positive patients, 64.3% (9/14) of were heterosexual men. In contrast, only about a half (50%) or less (36.8) of symptomatic CT and NG were heterosexual men. There is a significant association between MG and male heterosexuality (PR=2.2, 95% CI 1-4.5) in both groups. There is a significant association between NG and male homosexuality (PR=1.6, 95% CI= 1.1-2.4) symptomatic patients. No such association was found in CT positive patients. The authors concluded that MG is an important cause of urethritis particularly in male heterosexual group.

Efficacy of Staged Excision With Permanent Section Margin Control for Cutaneous Head and Neck Melanoma

Moyer JS, Rudy S, Boonstra PS, Kraft C, Chinn SB, Baker SR, et al.

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An observational cohort study, including 806 patients with melanoma on the head and neck region, was done to investigate local recurrence rates and margin to clearance end points with staged excision using comprehensive hematoxylin-eosin-stained permanent section margin control.

The estimated local recurrence rates were 1.4% at 5 years, 1.8% at 7.5 years, and 2.2% at 10 years. A 9% increase in rate of local recurrence was observed for each 50-mm² increase in the size of the primary lesion (hazard ratio, 1.09; 95% CI, 1.02-1.15; P=0.02). In periocular cutaneous tumours, the rate for local recurrence was 12.5 times that of lesions excised from the scalp, cheek, forehead, or neck (hazard ratio, 12.48; 95% CI, 4.08-39.54; P<0.001).

In melanoma in situ, the mean (SD) margin to clearance was 9.3 (5.1) mm as compared to 13.7 (5.9) mm for invasive melanoma. Margins were clear after 5 mm or less in 232 excisions (41.1%) and after 10 mm or less in 420 excisions (74.5%) for melanoma in situ. In contrast, clear margins were seen after 5 mm or less in only 8 excisions (3.0%) and after 10 mm or less in 141 excisions (52.2%) in invasive melanoma.

This study provides evidence of efficacy using a staged-excision method with comprehensive formalin-fixed permanent section total peripheral margin control, demonstrating low local recurrence rates and patient satisfaction. The authors concluded it may serve as a reference point for future practice guidelines.

Teledermatology for the Diagnosis and Management of Skin Cancer: A Systematic Review

Finnane A, Dallest K, Janda M, Soyer HP.

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Teledermatology is common nowadays and it is necessary to review the accuracy of this device as compared with in-person care. This study focused on: (1) How does teledermatology for skin cancer diagnosis compare with usual care (face-to-face [FTF] diagnosis)? (2) Does it save time for the clinician and/or patient? (3) What are the facilitating factors and barriers to its application in clinical practice for skin cancer diagnosis?

A total of twenty-one studies were reviewed from six databases (Cochrane, PubMed, Medline, Science Direct, Embase, and Web of Science). There was a higher diagnostic accuracy for face-to-face (FTF) dermatology consultation (67% -85% agreement with reference standard, Cohen K, 0.90) as compared to teledermatology (51%-85% agreement with reference standard, K, 0.41-0.63) for the diagnosis of skin cancer. Teledermatology significantly reduced waiting times to 9 days vs 14 days for paper referral, resulting in earlier assessment from 9 days vs 26.5 days for FTF clinics. A higher rate of diagnostic difficulty was reported in teledermatology (61 to 87% of cases) compared to 54% reported as in FTF clinics. The interobserver reliability among the teledermatologists in diagnosis and management plan was moderate (k 0.56-0.78) and low (K 0.31-0.38) respectively.

The authors concluded the integration of teledermatology into the diagnosis and treatment of skin cancer patients needs further study.