Background In HIV-positive individuals clinicians observe a broad range of skin conditions like xerosis, tumours, rash and drug-induced exanthema as well as common skin infections caused by bacteria, fungi and viruses. Beyond this, some reports point out a higher incidence on atopic conditions like atopic dermatitis (AD), sinusitis, asthma and laboratory findings like hypereosinophilia and Hyper IgE.
Methods Between May and November 2006, 196 patients of the HIV outpatient department of the Clinic for Dermatology, Venerology and Allergology at the Ruhr University Bochum underwent a dermatological examination. Skin conditions focusing on AD were measured by SCORAD (SCORing Atopic Dermatitis) and Erlanger atopy score.
Results In general, 36 patients (18.4%) out of 196 participants suffered from clinically from AD. Median count at "Erlanger Atopy Score" was 12.8 (median 11.5). Verification by SCORAD showed 55.6% (20/36) with mild, 36.1% (13/36) with moderate and 8.3% (3/36) with severe AD. Neither with pruritus and viral load nor with CDC Category a correlation was found. Exclusively CD4 counts were negative correlated with higher Visual analogue scale for prutitus ($p = 0.0306$). Xerosis was diagnosed in more than 53.6% of the 196 patients and thus was the leading diagnosis, although there was no correlation with the CD4 count, viral load or CDC Category. Furthermore, a negative correlation was found ($p = 0.0214$) between IgE and CD4 and a p-value of 0.0111 between IgE and the CDC Category (higher IgE, higher CDC Category) was demonstrated as well.
Conclusion In our sample xerosis cutis was the leading diagnosis. Furthermore, compared to pre-existing literature for the first time standardised diagnostic tools for AD, the SCORAD and the Erlanger Atopy Score, were used to examine HIV-positive individuals. Diagnostic tools help to identify the origin of dry skin in HIV-infected patients and to initiate adequate treatment.

P2.108 AZITHROMYCIN PHARMACOKINETICS AFTER INTRAVENOUS INFUSION IN WOMEN WITH AND WITHOUT PELVIC INFLAMMATORY DISEASES

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Patients With acute PID are usually treated in hospital, and antibiotics are used intravenously to get the result as soon as possible. *Chlamydia trachomatis* is a major PID-causing pathogen, and azithromycin is one of the most active antibiotics against this microorganism.
Aim of the study To evaluate azithromycin concentrations after intravenous infusions in tubal tissues from women with and without PID.
Patients and Methods To prevent possible complications after future surgery azithromycin was infused intravenously (500 mg twice with 24-hours interval prior surgery, total dose 1.0 g) into 70 patients with PID (before surgery to prepare them for IVF), and into 28 patients without PID (before surgical sterilisation). Azithromycin pharmacokinetics was studied in tubal tissues incised at surgery 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 16 and 18 days after the second infusion.
Results In patients without PID maximal azithromycin concentration (4.30 ± 0.30 μg/g) was achieved 24 hours after infusion and remained constant for 24 hours more, with a steady drop thereafter. In women with PID maximal azithromycin concentration was achieved in tubal tissues 72 hours after the second infusion, and was lower than in women without PID (3.38 ± 0.10 μg/g). But on 6th day after infusion azithromycin concentration in inflamed tissues from women with PID was significantly higher than in non-inflamed tissues from women without PID (1.50 ± 0.10 μg/g and 0.95 ± 0.15 μg/g, respectively). In both groups azithromycin tissue concentration exceeded *C. trachomatis* MIC (0.125 μg/g) even 18 days after the second infusion.
Conclusion Azithromycin tubal tissue concentration even 18 days after infusion of 1 g (500 mg twice with 24 hours interval) exceeds MIC to *C.trachomatis* both in inflamed and non-inflamed tubes. Maximal azithromycin concentration is higher and achieved faster in women without PID, but it is higher in women with PID one week after infusion.

P2.109 SEXUAL TRANSMISSION OF BACTERIAL VAGINOSIS WITHOUT EXPOSURE TO SEMINAL FLUID

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Background The pathogenesis of BV is poorly characterised although there is considerable evidence that it is sexually transmitted. Some have suggested that the alkalinity of semen may be a factor. We report a case of suspected sexual transmission of BV from a prostatectomized male to a female.
Methods Case report from a prospective study of behavioural factors influencing the vaginal flora wherein women collect daily self-obtained vaginal slides and behavioural data. Slides are Gram stained and interpreted according to Nugent criteria. Women are encouraged to present for evaluation if symptoms occur.
Results A 51 year old female complained of new onset vaginal irritation for one day. She denied discharge, pruritus, or odour and had not recently douched. She was sexually active with one partner, a male who had undergone a radical prostatectomy. Her last unprotected intercourse occurred 3 days prior to onset of symptoms and prior to that she had been abstinent for 6 weeks. A slide obtained the day before her sexual exposure had a Nugent score of 0. Repeat gramme stain revealed BV with a Nugent score of 8. Her male partner admitted to unprotected sex 6 days prior to their encounter with another female. A vaginal slide obtained from that partner revealed BV with a Nugent score of 8.
Conclusion To our knowledge, this is the first report documenting sexual transmission of BV from a male to a female in the absence of semen. The onset of symptoms and her sexual history indicates that the incubation period for BV was 72 hours. It is likely that the patient's male partner became colonised in his distal urethral or coronal sulcus with BV organism(s) after he had unprotected sexual intercourse with his other female partner and transferred those organism(s) on desquamated epithelial cells to our patient during unprotected sex.

P2.110 RISK FACTORS FOR BACTERIAL VAGINOSIS AMONG SYMPTOMATIC WOMEN ATTENDING STI CLINIC IN TEL AVIV, ISRAEL

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Background Bacterial vaginosis (BV) is a common cause for vaginal symptoms and is associated with an increased risk of acquisition of STI/HIV, and with adverse pregnancy outcomes. This study aimed to describe demographic, behavioural and clinical characteristics of symptomatic women diagnosed with BV among those who attended the municipal STI clinic in Tel-Aviv, Israel, and identify risk factors for the disease.

Methods A case-control study, based on data from medical records of women who had attended the clinic between January 2003 and April 2008. Demographic, behavioural and clinical characteristics of symptomatic women diagnosed with BV using the Nugent gramme stain scoring system, were compared to those of symptomatic women who were tested negative for BV.
Results A total of 341 symptomatic women were included in this study, 131 were diagnosed with BV (cases) and 210 were symptomatic but were not diagnosed with BV (control group). In a multivariate analysis BV diagnosis in symptomatic women was related to being born in the former Soviet Union, multiple sexual partners (> 6) in the previous 3 months, and previously infected with HSV or *Chlamydia trachomatis*. Candida was found to be inversely related to BV diagnosis.
Conclusion BV diagnosis poses a diagnostic challenge for the physician, as the symptoms are not specific even among symptomatic women. Furthermore, candida infection may be characterised with similar clinical symptoms and may delay BV diagnosis. Being familiar with the risk factors for BV may assist the physician in diagnosing the disease in its earlier stage, thus preventing further morbidity. The demographic, behavioural and clinical factors attributed in this study are easily retrieved by anamnesis and can raise the level of suspicion to the possibility of BV.

P2.111 STREPTOCOCCAL BALANOPOSTHITIS AS UNRECOGNIZED SEXUALLY TRANSMITTED INFECTION

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Purpose We investigated balanoposthitis caused by *Streptococcus pyogenes* following sexual intercourse to reveal an efficient diagnosis and treatment.

Materials and Methods: Five male patients complaining of genital inflammation after sexual intercourse were diagnosed as balanoposthitis arising from *Streptococcus pyogenes* infection between 2008 and 2012. The clinical characteristics were retrospectively reviewed.
Results Three cases presented with marked pyoedema of the glans and foreskin mimicking gonococcal or chlamydial urethritis. The remaining two cases presented with papules, scabs and erosions without discharge, which were similar to candidiasis or genital herpes. All cases were diagnosed as balanoposthitis arising from *Streptococcus pyogenes* infection, which was confirmed by cultures of genital area. Two of them underwent biochemical testing of rapid antigen detection (StatCheck Strep A II™, Kainos Ltd., Japan) with bacterial culture examination, and identified as streptococcal balanoposthitis at the initial visit. Three cases were successfully treated with penicillin. Antibiotic susceptibility revealed that all cases were fluoroquinolone intermediate resistant patterns
Conclusion Streptococcal balanoposthitis has rarely been reported, and has not been recognised as a sexually transmitted infection. Because of common appearances and symptoms, it may have a higher prevalence than previously considered. These cases could be divided into two categories in terms of clinical characteristics,"discharge dominant type" and "eruption dominant type". Rapid antigen detection of *Streptococcus pyogenes* should be attempted to use as first diagnostic tool for male genital inflammation for proper antibacterial therapy.

P2.112 THE ENYGMA OF BUSCHKE-LÖWENSTEIN IN THE HPV VACCINE ERA

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Background and open questions Buschke-Löwenstein tumour (BLT) or giant condyloma acuminatum is a semimalignant neoplasm of the external genitalia and the perianal region. The hallmark of BLT is its possible transformation into squamous cell carcinoma (SCC) despite its histological benignity, and high rate of local recurrence. Most authors believe that BLT is a type of verrucous carcinoma (VC). Other authors suggested that BLT and VC are two distinct entities, in spite of all morphologic similarities, and the basic difference they investigate is correlation of BLT and HPV infection and p53 inactivation. It has been proposed that BLT represents intermediate state between CA and SCC. Malignant transformation to invasive SCC has been reported in 30–56% of cases. The variety of impressive clinical features in our patients with BLT, including the subjects in the age of 1.5 years support these findings. HPV DNA type 6 or 11 is regularly found in most (but not all) types of BLT, strongly suggesting its aetiological role in tumour development. In all of our BLT patients HPV DNA 6 has been revealed, except in 1 patient with HPV DNA 18. Accordingly, in this patient the histopathological evidence of malignancy (SCC) was documented! Due to lack of controlled studies about BLT, uniform treatment guidelines have not yet been established.
Conclusion An analysis of most published cases, including our own experience brought up conclusion that only consistently effective therapy is wide surgical excision of the tumour with clear margins, in spite of some anecdotal reports of the successful treatment with interferon or immiquimod. The recent introduction of a HPV vaccine (especially the quadrivalent one considering the prevention of the anogenital warts in men) has ushered in new hope of substantially reducing global prevalence of HPV disease and the burden of BLT.

P2.113 URINARY CALPROTECTIN: A BIOMARKER OF URETHRAL INFLAMMATION

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Background There is currently no reliable indicator of inflammation available for the evaluation of genital tract syndromes. We investigated the association of urinary calprotectin concentration, an innate immune system mediator protein, with urethritis.
Methods First catch urine specimens from men with and without urethritis (> 10 neutrophils/high power field of urethral smears) were tested for *Neisseria gonorrhoeae* (NG), *Chlamydia trachomatis* (CT), *Mycoplasma genitalium* (MG) and *Trichomonas vaginalis* (TV) by nucleic acid amplification tests (NAAT). Supernatants from these samples were tested in duplicate by ELISA for human calprotectin. Data were analysed using Spearman's coefficient of rank correlation (rho) and ROC curves.
Results 159 urinary supernatants were tested. 54/159 had urethritis; 35/159 were NAAT positive for any of CT, NG, MG or TV of whom 27/35 had urethritis; 97/159 had no urethritis and were NAAT negative for all 4 pathogens. The correlation coefficient (rho) for calprotectin concentration and presence of urethritis/infection was 0.529 (95% CI: 0.407–0.633; $p < 0.0001$) with a calprotectin concentration of 95ng/mL (95% CI: 65–119.64ng/mL ROC curve AUC: 0.811, 95% CI: 0.741–0.869 $p < 0.001$) having a sensitivity of 0.771 (95% CI: 0.594–0.949) and specificity of 0.831 (95% CI: 0.746–0.915) compared to a sensitivity and specificity of urethral smears of 0.771 (95% CI: 0.594–0.949) and 0.782 (95% CI: 0.69–0.875) respectively in detecting CT, NG, MG or TV infections. The calprotectin assay had sensitivity and specificity of 0.629 (95% CI: 0.476–0.782) and 0.907 (95% CI: 0.834–0.981) respectively for detecting urethritis.