

Reports on Scientific Meetings

Social Hygiene Symposium 2009

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increases the figure to 80%. Risk factors associated with this high prevalence of anal HPV carriage include high number of sex partners, history of sexually transmitted diseases (STDs) and receptive anal intercourse. However, data on local prevalence of anal HPV infection is still lacking.

Anal human papillomavirus infection in sexually transmitted disease clinic

Speaker: Dr. Wai-yiu Leung
Medical & Health Officer, Social Hygiene Service, Department of Health

The causal relationship between human papillomavirus (HPV) infection and cervical cancer is well established. Its association between anal cancers still remains uncertain, yet it is believed to play a central role in causing the rising trend of anal cancers in the previous three decades.

Previous studies have shown that more than 70% of anal cancer patients harbour HPV, in which more than 80% belong to high-risk oncogenic types, HPV 16 and 18. Asymptomatic carriage is also common among men having sex with men, with a prevalence of 50-60%. Human immunodeficiency virus (HIV) infection further

The speaker has performed a cross sectional study to examine the asymptomatic carriage rate, viral prevalence of anal HPV infection among STD clinic attendees. Out of 160 male attendees, 16.9% showed anal HPV infection, of which 14.8% had oncogenic HPV type. Presence of genital warts was shown to be an independent risk factor associated with anal HPV infection. This study showed that anal HPV infection was not uncommon in this locality but the risk of oncogenic HPV carriage was still low when compared to other studies in different countries.

Learning points:

Anal HPV infection is not uncommon in this locality. Sexual behaviour, presence of genital warts and HIV infection are risk factors for anal HPV infection.

Diagnosis of gonococcal urethritis by Gram stain and microscopy - What is our standard?

Speaker: Dr. Chi-keung Kwan

Medical & Health Officer, Social Hygiene Service, Department of Health

Gonococcal urethritis (GC) presents with disgusting symptoms such as urogenital milky discharge or dysuria. It is difficult to differentiate between gonococcal urethritis and non-gonococcal urethritis (NGU) just by history and clinical examination alone. Empirical treatment may induce drug resistance. On the other hand, if treatment is delayed till the culture result returns, complications and the spread of infections may be increased. Gram stain and microscopy of smear from the urogenital tract is performed in order to reach the preliminary diagnosis of GC. Then treatment can be given simultaneously. As a result, urethral / cervical smear may be an effective solution bridging these two dilemmas – drug resistance and treatment delay. A retrospective study was performed to review all available patients' records who attended the Social Hygiene Clinics with urogenital (urethral / cervical) smear done during July 2005 to June 2008 and the results were compared with culture done by modified Thayer Martin medium to determine the sensitivity and specificity of microscopy in the diagnosis of gonorrhoea.

Overall, a total of 68,709 microscopies were done for gonorrhoea during the three-year study period. Of these, 4,049 smears (6%) were reported to have Gram negative intracellular diplococci, in which 3,567 smears were true positive with confirmation by subsequent positive GC culture. In contrast, there were 64,660 smears reporting the absence of GC in which 354 were false negative smears as they were subsequently confirmed by positive GC culture. The overall sensitivity and specificity of microscopy for diagnosis of gonorrhoea were 91.0% (95% confidence interval: 90.8%-91.2%) and 99.3% (95% confidence interval: 99.2%-99.4%) respectively. If the analysis is broken down by

gender, the sensitivity in male patient (94.9%) is much higher than female patients (54.0%). However, the specificity is similar in both male (98.8%) and female (99.8%). These results are compatible with other studies done in UK. In summary, Gram stain and microscopy may be a simple and cost-effective diagnostic tool for gonococcal urethritis. High specificity may provide a good support of initiating instantaneous treatment without the need to wait for culture result.

Learning points:

Urogenital smear is highly sensitive and specific for the diagnosis of GC. This provides a good rationale for initiating treatment before waiting for culture result in order to limit disease spread and complications.

The epidemiology and seroprevalence of genital herpes in sexually transmitted infections clinic attendees in Hong Kong

Speaker: Dr. Fong-ching Ip

Medical & Health Officer, Social Hygiene Service, Department of Health

Herpes genitalis (HG) is one of the most common sexually transmitted infections in Hong Kong and other countries. Most HG is caused by herpes simplex virus type 2 (HSV-2).

In Hong Kong, the seroprevalence and epidemiology of HSV-2 infection is not known. The study aimed at determining the seroprevalence and epidemiology of HSV-2 infection in sexually-transmitted infections (STI) clinic attendees in Hong Kong by the use of a commercially available serology kit. The kit works by detecting the HSV-2 type-specific IgG antibody against glycoprotein G-2. The socio-demographic, clinical and behavioural factors of the attendees were also recorded.

A total of 881 serum samples were collected. The overall seroprevalence of HSV-2 in STI clinic attendees in Hong Kong was 24.2% with a male and female prevalence of 13.5% and 36.7% respectively. The seroprevalence in commercial sex workers (CSW) was 60.8%. The risk of HSV-2 seropositivity was found to be independently associated with older age, female gender, married people, occupation as CSW, presentation of genital ulcer, past history of STI and multiple lifetime sex partners.

Learning points:

This study shows that the seroprevalence and risk factors of HSV-2 infection in STI clinic attendees in Hong Kong were comparable to other countries.

Study on *Staphylococcus aureus* colonized in patients with atopic dermatitis and their close contacts

Speaker: Dr. Mona LS Chiu

Medical Officer, Department of Medicine and Therapeutics, Prince of Wales Hospital

Staphylococcus aureus (*S. aureus*) is commonly colonized in patients with atopic dermatitis (AD). The close contacts of AD patients may act as a reservoir for the bacteria. Fifty AD patients with their respective close contacts were recruited and compared with non-AD controls. Close contact of AD patients had a significantly higher rate of *S. aureus* colonization. *S. aureus* colonization was the independent predictive factor for moderate to severe AD after adjusting for other confounding factors in regression analysis. All of the isolates in the study were sensitive to cloxacillin.

The investigator concluded that anterior nares of the close contacts of AD patients were potential reservoirs of *S. aureus*. Cloxacillin was the antibiotics of choice in the treatment of infective complication of AD.

Learning points:

S. aureus is commonly colonized in patients with atopic dermatitis (AD). Anterior nares of the close contacts of AD patients were potential reservoirs of *S. aureus*.

Atopic eczema: the impact on quality of life of patients

Speaker: Dr. Carmen KM Lam

Medical & Health Officer, Social Hygiene Service, Department of Health

Atopic eczema (AE) is a major public-health problem worldwide which affects 2-7% of the adult population and 10-15% of children. AE has significant impact on the quality of life in both children and adult patients. This results in psychosocial disturbances in patients, especially in terms of self-image which may lead to reduction in self-esteem and their ability to cope with the disease and adherence to treatment. The relationship between severity of skin diseases and quality of life is complex. Patients with mild AE may report severe subjective symptoms of disfigurement, social stigma or some disruption of the lifestyle resulting from skin diseases that may endanger quality of life. The assessment of the impact and morbidity of the disease is difficult as there is lack of endpoint that can be measured like quantitative parameters. Therefore, clinical scoring system of quality of life assessment is important. Also, there is very limited data on this aspect in the local population.

A cross-sectional descriptive study was conducted in Social Hygiene Service to assess the health-related quality of life (HRQoL) of Chinese population with atopic eczema attending government dermatology clinics in Hong Kong from October 2008 to February 2009 using SF-36, Dermatology Life Quality Index (DLQI) and Children's Dermatology Life

Quality Index (CDLQI). The results were compared with that of normal population and other diseases. The correlation between various HRQoL instruments was evaluated and the relationship between self reported HRQoL instruments and the physician assessed diseases severity, i.e. SCORing Atopic Dermatitis (SCORAD) was identified.

120 patients were recruited in this study (70 children and 50 adults). Patient with AE were found to have impairment of quality of life when compared with that of the general population. The mental component summary (MCS) of SF-36 correlated with other HRQoL instruments including DLQI, CDLQI significantly. However, the physical component summary (PCS) of SF-36 did not correlate or correlated weakly with other HRQoL instruments. The clinical severity assessed by SCORAD correlated weakly with components of SF-36, including PCS and MCS. For DLQI, CDLQI and sleep loss, SCORAD correlated with them moderately.

Learning points:

The quality of life of AE patients was affected in local population. Its mental impact was comparable to other medical conditions that were well known to cause significant morbidity and mortality. Physicians should assess the psychological impact of AE patients during consultations and multidisciplinary approach may benefit these patients.

Carriage of genitotropic human papillomaviruses on fingers

Speaker: Dr. Alice YK Chan
Private practice, Hong Kong

The objectives of the study are, firstly, to find out whether patients with genital warts carry the genitotropic human papillomavirus (HPV) DNAs on their hands and fingers; secondly, to determine the prevalence of genitotropic HPV DNAs on hands and fingers of individuals with or without genital warts in a group of patients with sexually transmitted disease; thirdly, to compare the HPV genotypes detected from genital warts or genital area with the HPV genotypes detected on hands and fingers and fourthly, to identify the risk factors of carrying the genitropic HPV DNAs on hands and finger.

This study recruited 163 female patients with different types of sexually transmitted diseases. Ninety patients had genital warts and 73 patients had different sexually transmitted diseases other than genital warts. Separate cytobrushes were taken from the surface of genital warts or genital surface and hands and fingers. Buffered saline was used to moisten the cytobrushes in the collection tube and then examined for the presence of HPV DNA by polymerase chain reaction. Sexual history, demographic data, sexual practice, barrier contraceptive method and habits such as smoking were obtained from the patient's notes and the subject's last time of hand washing was recorded.

HPV DNAs could be detected in 19 out of 90 patient's hands and fingers among those patients with genital warts (21.1%) including the compatible and unidentified types because of insufficient DNA. Same type of HPV DNAs was identified in both the genital warts, hands and fingers in 10 patients (11.1%). Comparing to those patients without genital warts, HPV DNAs were only found in 4 out of 73 patient's hands and fingers (5.5%) including the compatible

types and unidentified types due to insufficient DNA. Same types of HPV DNAs were found in 1 out of 73 patient's external genitalia, hands and fingers (1.4%). Using multivariate logistic regression analysis of the possible risk factors, a significantly higher HPV DNAs detection rate was found on hands and fingers in patients with genital warts compared with those without genital warts ($p < 0.008$). The same types of HPV DNAs detected on hands and fingers were also found to have significant difference between patients with or without genital warts ($p < 0.038$). No significant differences was found in variables such as number of lifetime sexual partners, sexual practice, condom usage, smoking, high risk HPV DNAs and the last time of hand

washing before collection of hands and fingers samples. HPV 11 and HPV 6 were the most prevalent types of HPV DNAs.

Learning point:

HPV DNAs can be detected on hands and fingers, some of which are of the same genotype as HPV DNA detected in genital warts. Apart from the well known genital route of transmission, further studies are required to test whether hands to genital contacts may act as an alternative route of transmission.