Perforating chancre: any cause-effect relation with HIV infection?

Variation in clinical pictures of syphilis, when co-infected with HIV are well known. Normally, a classic Hunterian chancre heals within 1–2 weeks of treatment without scarring. Primary chancre, healing with perforation of the site, does not commonly occur. Here we report four patients with primary syphilis, in whom the chances healed with perforation of the genitalia. Concomitant infection with HIV is presumed to be responsible for this destructive sequela.

Case 1
A 21 year old woman presented with a painless, indurated ulcer on the inner aspect of the left labia majora, along with same sided inguinal lymphadenopathy of 1 week’s duration. Dark ground microscopy (DGI) was positive for Treponema pallidum and VDRL titre was 1:64. Following treatment with penicillin, the ulcer healed slowly, leaving a perforation on the labia majora.

Case 2
A 20 year old unmarried male patient with high risk behaviour presented with a painless indurated ulcer over the dorsal aspect of the prepuce and unilateral inguinal lymphadenopathy. DGI was positive for T pallidum and VDRL titre was 1:32. He had a history of genital ulceration and was treated for suspected lymphogranuloma venereum. Following treatment with penicillin, the ulcer healed at a slower pace leaving a large perforation on the prepuce (fig 1).

Case 3
A 23 year old unmarried man, with a history of repeated unprotected exposure to commercial sex workers, presented with a painless, indurated ulcer on the dorsal prepuce, multiple genital mollusca contagiosa, and genital warts.

References

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Superior mesenteric artery syndrome in an HIV positive patient

A 27 year old HIV positive man with a CD4+ lymphocyte count of 26 cells x10^9/l presented with a 2 week history of progressive left sided weakness, vomiting, and weight loss. A computed tomography (CT) brain scan demonstrated ring lesions bilaterally in the basal ganglia. Toxoplasma serology was positive at a titre of 1:256 and treatment for cerebral toxoplasmosis commenced. His weakness responded to therapy but vomiting continued despite antiemetics. An ultrasound scan demonstrated an enlarged, dilated stomach, dilated first and second parts of the duodenum, and an obstruction at the level of the third. Barium studies confirmed these findings but also demonstrated prominent peristalsis in the second part of the duodenum and an abrupt cessation of flow to barium in the middle of the third (fig 1). Some flow of barium into the jejunum was noted when the patient was turned prone. An abdominal CT scan demonstrated a reduction in the angle between the superior mesenteric artery and the aorta (fig 2). A diagnosis of superior mesenteric artery (SMA) syndrome was considered. Two litres of bile were aspirated per nasogastric tube daily and he continued to lose weight. His body mass index (BMI) fell to

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Figure 1 Perforation of prepuce.

Bilateral inguinal lymphadenopathy was present. DGI from the ulcer was negative and VDRL was 1:64. Following penicillin therapy, it healed with perforation of the prepuce.

Comment
Gram stained smears from the ulcers and culture for aerobic and anaerobic organisms were negative in first three cases. In all the four patients, ELISA for HIV was positive.

Immune response to T pallidum is primarily cell mediated. In an immunocompetent host with primary syphilis, CD4+CD8+ T lymphocyte ratio is high at the site of the chancre, which possibly prevents local multiplication of the organism. Consequently the loss of local cellular immunity as a result of HIV infection there may be an enhanced ability of the organism to multiply locally, giving rise to larger and deeper ulcers which are slower to heal. This fact has been demonstrated experimentally in animal models.

Studies exploring the correlation of CD4+ T cell count and stage of HIV infection with this altered manifestation of primary syphilis should be undertaken. This might show the impact of HIV infection on the clinical severity of primary chancre.

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Figure 1 Image from barium meal series. The proximal duodenum is dilated. There is an abrupt calibre change (arrow) in the third part where the superior mesenteric artery crosses. Distinct peristalsis was seen in this region during the study.
or nasogastric decompression is often difficult because of severe gastric dilatation. Duoden jejunoectomy or gastrojejunoectomy are the surgical procedures of choice when medical therapy fails. Our patient did not experience immediate symptomatic relief through surgery but did achieve rapid weight gain via jejunal feeding. We report the first case of SMA syndrome in a patient with AIDS. The spread of HIV worldwide and its association with severe wasting makes this an important differential diagnosis for the clinician.

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12 and total parental nutrition was introduced for 6 weeks after which an exploratory laparotomy was performed. An anterior gast rojejunoectomy was made and a jejun al feeding tube inserted into the collapsed proximal small bowel. The patient recovered postoperatively but continued to vomit after meals. After 4 weeks his BMI increased to 15, vomiting stopped, and he demanded food. At the time of writing he is well, independent, and on antiretroviral therapy.

Superior mesenteric artery syndrome is a controversial diagnosis synonymous with vascular compression of the duodenum, arteriosclerotic duodenal compression syndrome, the cast syndrome, chronic duodenal ileus, and Wilkie’s syndrome. First described by Rokitskian in 1842, frequency of reports have recently declined and its existence debated. The syndrome has been ascribed to a reduction in the angle between the aorta and the superior mesenteric artery, scissoring the duodenum in its third part causing obstruction. This is often because of sudden, severe weight loss resulting in a reduction of mesenteric and retroperitoneal fat. Precipitating factors include eating disorders, severe wasting conditions, prolonged immobilisation, previous abdominal surgery, or inflammatory conditions. It has also been reported in cases of severe kyphoscoliosis. It has not previously been reported in AIDS.

Characteristic symptoms, typically intermittent in nature, comprise bloating, nausea, and intractable bilious vomiting relieved by adopting the prone or knee to chest position. A barium meal is the most useful diagnostic investigation. Features of note include dilatation of the first and second parts of the duodenum and an abrupt, linear hold up of flow to barium in the third with abnormal peristalsis and even reverse peristalsis frequently observed. Relief of the obstruction can in some instances be achieved by placing the patient prone during the investigation. CT studies can demonstrate reduction in the aortosuperior mesenteric artery angle and serve as a non-invasive diagnostic tool. Reversal of weight loss is key to resolution, by surgical means if necessary. Nutritional support should be attempted first. Endoscopic

Figure 2 Multislice CT with intravenous contrast medium: sagittal reconstruction through mid-abdomen. The angle between the superior mesenteric artery and the aorta is reduced causing compression of the duodenum (arrow). Note grossly distalised stomach anteriorly.

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Was the Papanicolaou smear responsible for the decline of Trichomonas vaginalis?


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There has been a dramatic decline in the prevalence of trichomiasis in Australia over the past 30 years. In 1979, 17.8% of women attending a Sydney STI clinic had Trichomonas vaginalis infection. By 1998 less than 1% of non-Indigenous women presenting to family planning and STI clinics in another part of the duodenum. Clin Radiol 1982;33:75–81. 2 Hines JR, Gore RM, Ballanyne GH. Superior mesenteric artery syndrome. Diagnostic criteria and radiologic approaches. Am J Surg 1984;148:630–2.
epidemic in Russia of between 6–11% by 2010, and the potential for economic decline and geopolitical instability: HIV trends in Ukraine, with many of the same socioeconomic characteristics and risk factors found in Russia—namely, large numbers of injecting drug users (IDUs), an expanding sex industry, internal and external migration, poor access to health care, general economic and social upheaval, and a recent explosive syphilis epidemic—must therefore be examined closely. Could Ukraine present a model for Russia in terms of controlling the HIV epidemic, or does Ukraine in fact represent an ongoing epidemic inadequately described by official statistics?

The first indication that perhaps the data presented by Mavrov and Bondarenko reflects the ongoing HIV epidemic in Ukraine is the apparent contradiction in table 1, which reports the prevalence of HIV among select groups in 1998 and 1999. While HIV prevalence for “all populations” declined, every subpopulation increased, except for a decline from 0.07% to 0.064% among blood donors. Prevalence among pregnant women, who reflect the likely future of the epidemic, increased by 33%.

Current official statistics in Ukraine simply do not reflect the current status of the epidemic, and, importantly, do not reflect the likely future course of the epidemic. As Mavrov and Bondarenko report, the majority of new HIV cases continue to be among IDUs. This population is wary of the healthcare sector, as the acknowledgement of drug use to a healthcare provider leads to obligatory registration and confinement for treatment, possible job loss, loss of one’s driving licence, and criminal prosecution. Kobyschak reported that only 5% of IDUs were covered by the current system of HIV surveillance. Rather than the 8.6% prevalence reported by Mavrov and Bondarenko among IDUs, cross sectional studies have shown prevalence of between 18% and 64% (table 1).

Behavioural factors also argue against the likelihood of a stable epidemic in Ukraine. In a study of female sex workers (FSW) in Odessa conducted in 1997 and 1999, the percentage of FSWs reporting always using condoms declined (from 49% to 40% in 1999). A 1999 national reproductive health survey found that 27% of women reported condom use at the time of first sexual intercourse.

Recent efforts to model the likely course of the AIDS epidemic in Ukraine, developed an “optimistic” scenario, where HIV prevalence increased to 2% of the adult population by 2010, and a “pessimistic” scenario, where HIV prevalence increased to 5%. While official statistics might indicate a stable
Genitourinary Medicine, while 17.3% specified an inadequate course. Dosage or duration could not be ascertained in 12.7% of responses. This suggests substantial improvement in the past few years, although our study probably over-represents GPs already treating, since it could exaggerate the extent of good practice.

Our study suggests that GPs already willingly take on an important role in diagnosing and managing genital chlamydia infection. They agree overwhelmingly that partner notification is the main difficulty in managing these patients. However, there is little evidence of follow up strategies designed to minimize re-infection risk, as in previous studies, and the majority of GPs consider that partner notification is not their role. The latter view probably explains why the majority manage partner notification by simply telling the patient to deal with it, without support or follow up.

If testing in primary care continues to increase without adequate support for partner notification, much of the resource used in testing women will be wasted. The announcement of pilot sites for chlamydia testing in primary care is to be welcomed. However, support for GPs in partner notification should not wait for the roll out of a national programme, for many patients diagnosed in primary care are already at risk of re-infection and onward transmission.

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Circumcision in genital warts—let us not forget!

Patients with genital warts present to the healthcare professional with two major problems of persistence and recurrence. These two problems of persistence and recurrence of human papillomavirus in the keratinocytes, defective immune response in individuals with persistence and recurrence of warts, and the lack of specific antiviral therapy. Various treatments tried in the management of genital warts are topical podophyllin, podophyllotoxin, cryotherapy, electrosurgery, chemical cautery, carbon dioxide laser, 5-fluorouracil cream, topical imiquimod cream, and intralesional interferon. We wish to highlight the role of circumcision in extensive genital warts involving prepuce, which were refractory to the conventional treatment. A 50 year-old patient presented to us with genital warts for duration of 4 years. On examination, lesions were in the form of sessile, filiform, and papular keratotic verrucous lesions present involving both outer and undersurface of almost whole of the prepuce (fig 1). These lesions were treated by us and in the past by various doctors with topical podophyllin, trichloroacetic acid cautery, electrosurgery, etc, for periods ranging from weeks to months with only minimal response, with the lesions coming back. The patient had some difficulty in retraction of the prepuce and was psychologically disturbed. The patient otherwise was healthy with no evidence of any other disease. Considering the extensive involvement of prepuce and refractory nature to various treatments, circumcision was performed. Histopathological examination of the excised tissue showed changes consistent with warts without any cellular atypia. Surgical wound healed well in a week with no complications.

Extensive genital warts with evidence of keratinisation are often refractory to podophyllin, podophyllotoxin, and cryotherapy, etc, and are best dealt with surgically or by topical 5-fluorouracil cream. Scissor excision has been mentioned in the treatment of sessile lesions over the shaft of penis, labia majora, and perianal warts. However, circumcision for extensive prepuceal warts finds no place in the list of treatments for genital warts in men. In addition to the psychological morbidities, larger and more numerous warts can cause discomfort, and particularly involving prepuce can cause phimosis, secondary infection, and marital disharmony and considerable anxiety in the sexual partner. Globally, approximately 25% of the males are uncircumcised for religious, cultural, medical, or parental choice reasons. However, controversies surround its benefits and protective effects against STDs. For genital warts, one study has reported a significant association with the lack of circumcision.

Substantive evidence supports the premise that circumcision protects males from HIV and other sexually transmitted infections, and ulcerative STDs. Although it may be debatable to recommend circumcision to reduce the risk of acquiring any one of the other STDs/HIV infection in isolation, taken together however the psychological and sexual discomforts for the patients and their sexual partners with recurrent/persistent extensive prepuceal warts, circumcision should be tried.

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Treatment of Candida glabrata using topical amphoterin B and fluconazole

We read with interest the article by White and colleagues on the treatment of Candida glabrata using topical amphoterin B and fluconazole because this infection can prove difficult to treat. We have since used this treatment on a 28 year old woman with a 10 year history of recurrent candida.

The woman first attended our department complaining of a recurrent itchy white discharge. She had received numerous courses of antifungals including topical clotrimazole, oral itraconazole, and fluconazole with no relief. Vaginal swabs were positive for C glabrata and she was treated with nystatin pessaries 200 000 units at night for 4 nights. Culture was still positive for C glabrata at follow up 4 weeks later so she was treated to continue with nystatin pessaries for a further 4 weeks. On review she felt her symptoms were slightly better but she found the pessaries were not dissolving so she was switched to nystatin cream 200 000 units by
It is a credit to the book's other talents that my bad humour was rapidly dissipated. The introductory chapters were, quite simply, a pleasure. The basis of humoral immunity was a clear rendition of the area, and the chapter on the principles of cellular immunity was as good, and as enjoyable an introduction to the field as you could get. The final introductory chapter, on mucosal defences, maintains the high standards set by the first two.

The remainder of the book is divided into three sections covering the molecular basis for immunotherapy, immunotherapy for HIV infection, and immunotherapy for other infectious diseases. Each of these three sections provides a good review of the major issues. The molecular basis of immunotherapy contains an excellent chapter on the role of dendritic cells, and usefully explains how their crucial role in immune defences might be utilised for immune therapy. The chapter on cytokines sheds light on an area which is too complex or obtuse for many.

The section on immunotherapy for HIV infection covers in turn the basis for immunotherapeutic HIV vaccines, passive immunotherapy, and gene therapy. There are some notable omissions dictated by the presumed delay between the research for each chapter, and publication of the book. For instance, RNA interference, sometimes known as post-transcriptional gene silencing, is currently being investigated as a possible major therapeutic strategy for the future. True, the problem of delivery to the target cells still has to be solved, but for RNA interference to be left out dates the book already. Similarly many of the viral and bacterial vectors for vaccine delivery worked on the past few years, such as adenovirus, and salmonella, to name just two, are not included. Even those that are, such as canarypox, are not included in the index. Which leads to my final criticism before summing up—the index is entirely inadequate and mitigates strongly against using this as a book of reference.

So in conclusion, this book represents a flawed gem. Viewed from a certain light it is illuminating, a joy to behold. From other angles, the imperfections are all too obvious. None the less, for a physician or scientist working in the field of infectious diseases or related areas such as STDs or HIV, it provides an introduction to the field of immunotherapy which is both accessible and enjoyable. Read it within the next couple of years before it begins to date further and it will be time well invested. For a specialist in the field it has limited value, except to recommend to trainees or newcomers.

If the editor decides to bring out another edition, he should somehow do the near impossible for multiauthored texts, and ensure they are all up to date. Oh, and also invest in a professional indexing service. Then, there really will be a precious jewel.

Barry S Peters

Bibliography

BOOK REVIEW


I judge this is a jewel of a book, although you would not think so from my comments in the next paragraph.

My initial reaction was one of intense irritation. The preface stated that the intention was to “review the state of the art . . . of this rapidly emerging . . . field.” A bold promise for which tight editorial time lines and up to date references would be essential. Yet, even though the book was published in 2002, there were very few references from 2001 or even from 2000 in some chapters. To take as one particularly bad example, the chapter dealing with the immunotherapy of HIV had only one reference as recent as 2000, and all the rest were from the last millennium.

It is a credit to the book’s other talents that my bad humour was rapidly dissipated. The introductory chapters were, quite simply, a pleasure. The basis of humoral immunity was a clear rendition of the area, and the chapter on the principles of cellular immunity was as good, and as enjoyable an introduction to the field as you could get. The final introductory chapter, on mucosal defences, maintains the high standards set by the first two.

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Barry S Peters

Bibliography

International Herpes Alliance and International Herpes Management Forum

The International Herpes Alliance has introduced a web site (www.heresalliance.org) where patient information leaflets can be downloaded. Its sister organisation the International Herpes Management Forum (web site: www.IHMF.org) has launched new guidelines on the management of herpesvirus infections in pregnancy at the 9th International Congress on Infectious Disease (ICID) in Buenos Aires.

Pan-American Health Organization, regional office of the World Health Organization

A catalogue of publications is available online (www.paho.org). The monthly journal of PAHO, the Pan American Journal of Public Health, is also available (subscriptions: pubsvc@tsp.sheridan.com).

Australasian Sexual Health Conference: Tango down South—2003!

4–7 June 2003, Christchurch Convention Centre, New Zealand.


7th European Society of Contraception Seminar


The 7th ESC Seminar on contraceptive practice in Europe; differences in availability and accessibility, will be held in Budapest Hungary. The main themes are availability and accessibility of: (1) contraceptive methods, (2) emergency contraception, (3) testing and treatment of sexually transmitted infections, and (4) abortions.

Further details: ESC Central Office, Essenerstraat 77, B-1740 Ternat, Belgium (tel: +32 2 582 0852; fax: +32 2 582 5515; email: esccentraloffice@contraception-esc.com; website: www.contraception-esc.com).