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Labial adhesion as a complication of primary genital herpes in young women

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Abstract: Genital herpes is a common sexually transmitted disease in adolescents. It may be associated with significant morbidity if not diagnosed on time or not properly treated. The objective of this study was to determine the incidence of labial adhesion secondary to primary herpes in young women and the possible predisposing factors for this complication. The method was analysis of clinical data regarding primary genital herpes in young women seen in an adolescent outpatient clinic at a university hospital. Cases of primary genital herpes seen between December 1st 1998 and November 30th 1999 were included. A total of 34 female adolescents with age range 12 - 19 years were diagnosed with primary genital herpes during this time period. Seven patients (20.6%) were found to have severe labial adhesion at time of diagnosis. All seven patients were seen by other providers prior to their evaluation in the adolescent clinic, and four were correctly diagnosed. All seven patients were given antiviral therapy, but none were given local treatment. At time of diagnosis all seven patients had urinary retention for more than 24 hours and severe pain and discomfort. Three patients had diabetes mellitus (one of these was also pregnant), and one patient had asthma (on steroid therapy). The age range for these seven patients was 13 - 17 years. Treatment with local anesthetics helped resolve the adhesion in five patients, and surgical treatment was needed in the remaining two patients. It is concluded that labial adhesion is a severe complication of primary genital herpes in young women. Chronic medical conditions, incorrect diagnosis, and lack of topical treatment may be associated with the development of this complication. Use of topical therapy should be an integral part of the comprehensive treatment for primary genital herpes in female adolescents to alleviate discomfort and prevent urinary retention and labial adhesion.

Keywords: Labial adhesion, genital herpes infection, adolescents, United States

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INTRODUCTION

According to the National Health and Nutrition Examination Survey (NHANES) (1), genital herpes is a very common sexually transmitted disease with seroprevalence of Herpes Simplex Virus 2 (HSV-2) of 21.7% in the general population of the United States in 1991. Most HSV-2 infections are acquired between 15 - 40 years of age (1,2), while HSV-1 is present in 20% of children (<5 years of age) and rises in linear fashion afterwards (2). Although most infections are

mild or subclinical, severe complications can occur (3,4) including the potential to facilitate Human Immunodeficiency Virus transmission (5-7). Many mild cases of genital herpes are not brought to medical attention or go unrecognized by clinicians (8).

Clinical manifestations of genital herpes may include ulcers, dysuria, urethral and vaginal discharge, vulvar irritation and possible fissures, in addition to classical vesiculopustular lesions (3,4,9,10). Urinary retention may also occur due to local

Table 1. *Description of the patients with labial adhesion. Summary data showing the characteristics of patients with labial adhesion.*

No.	Age	HSV	MODE OF TRANSMISSION	OTHER FACTORS
1	13	1	nonsexual	IDDM
2	13	1	oro-genital	asthma
3	16	1,2	Intercourse	IDDM, Pregnancy
4	16	2	Intercourse	None
5	14	2	Intercourse	IDDM
6	17	2	Intercourse	None
7	15	2	Intercourse	None

symptoms or as a consequence of sacral radiculomyelopathy (11), and this may also cause sensation changes and constipation (11).

Over the last few years, we have encountered several patients each year with severe labial adhesion as a complication of primary genital herpes. Most of these patients also had urinary retention for various lengths of time. Searching the literature revealed a lack of information regarding this complication, which was only mentioned in association with a photograph of labial adhesion (11). This study attempted to identify the incidence of labial adhesion in association with primary genital herpes, and looked for possible factors associated with this condition in young women. The effects of local therapy on labial adhesions were also studied.

METHODS

Clinical data regarding genital herpes in young women in an adolescent clinic outpatient setting was analyzed. Cases of primary genital herpes diagnosed between December 1st, 1998 through November 30, 1999 were included. During this time period any patient with significant complications because of primary genital herpes had herpes culture, serologic studies, or both to confirm diagnosis and identify the type of virus. In patients with a clear clinical picture and no serious compli-

cations, diagnosis was verified with tzanck smear, viral culture or serology.

RESULTS

In the twelve months included in this study, 34 female adolescents with age range 12-19 years were diagnosed with primary genital herpes. Seven patients (20.6%) had a severe labial adhesion at the time of diagnosis (Figs. 1 a and b), and all seven patients were seen by primary care providers or an emergency room physicians prior to visiting the adolescent clinic. Four of these were correctly diagnosed with herpes during their initial visit, and the other three had "uncertain Dx."

All seven patients were started on antiviral therapy prior to their visit to the adolescent clinic, but none were given local therapy. When evaluated in the adolescent clinic, all seven patients had urinary retention for at least 24 hours, severe pain and discomfort, and no defecation for at least two days. Three patients were also known diabetics (one of them was also found to be pregnant), and one patient was on steroid therapy for asthma (Table 1). HSV 2 was identified in four patients, and two had HSV 1. The last patient had both HSV 1 and HSV 2 (Table 1). Based on thorough history, mode of infection transmission was found to be via intercourse in most cases (Table 1). Mean age of this group was 15.9 with standard deviation of 1.6. The other 27 patients had a

(a)

(b)

Figs. 1a and b: Colposcopic photograph of a 13 year-old patient showing complete labial adhesion.

mean age of 16 with standard deviation of 1.9. Fifteen of the 27 patients in this group were initially diagnosed in the adolescent clinic, and 12 were referrals. None of these patients had any other medical conditions, and HSV 2 was identified in 18 while HSV 1 was found in two patients. The remaining seven patients had only tzanck smears with no serology or culture. All patients with genital herpes seen in the adolescent clinic are routinely given local treatment as described below.

All seven patients with labial adhesions were given a mixture of 2% viscous lidocaine (50%), Diphenhydramine (25%), and an anti-acid such as Maalox (25%) to apply locally every two hours. Patients were instructed to utilize warm water in a bathtub for urination and defecation. In five of these patients the adhesions resolved within a week, while the other two patients required mechanical separation under anesthesia because of persistence of the adhesions and continuing difficulty during urination.

DISCUSSION

Based on this study, Labial adhesion appears to be a relatively common, severe complication of primary genital herpes in young women despite the lack of attention to it in literature. In this study the very young age, chronic medical conditions, pregnancy, and lack of local therapy were associated with development of this condition. The small number included here does not allow any major conclusions in regards to this association, and further studies are needed to verify that. At this point there is no knowledge in regards to why some patients develop this problem while others do not. However, the fact that none of our healthy patients had it suggests that the above-mentioned factors are associated with this complication.

The associated urinary retention may aggravate the condition of these patients and could lead to renal failure if not resolved

quickly, especially in diabetic patients. None of the patients diagnosed initially in our clinic and given local therapy, as mentioned above, in addition to the antiviral regimen, developed adhesions. This and the excellent response to local therapy in five of the seven patients suggest that it is of utmost importance to provide local treatment to these patients at time of diagnosis.

Considering the lack of any studies on labial adhesions as a complication to primary genital herpes, it may be useful for primary care providers to be aware of this complication, and more research is needed to further our understanding of this problem.

CONCLUSION

Labial adhesion is a serious complication of primary genital herpes in young women, especially those with adverse medical conditions. Local therapy with topical anesthetics should be part of the comprehensive management of primary genital herpes in young women to alleviate pain and help prevent urinary retention and labial adhesion.

ACKNOWLEDGEMENTS

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BITS 'N PIECES

Alcohol use among Australian secondary students in 1996

Abstract: This research estimates the prevalence of alcohol use among Australian secondary students in 1996 and examines trends in alcohol prevalence over a 12-year period. A national randomly selected representative sample of 434 secondary schools participated in the 1996 study. Eighty students were selected randomly from each school and completed a questionnaire anonymously. Current drinking (drinking alcohol in the week before the survey) increased with age from 17% of boys and 10% of girls aged 12 to 56% of boys and 50% of girls aged 17. Comparisons with data collected by similar surveys in 1984, 1987, 1990 and 1993 showed that while fewer 12-15-year-olds were current drinkers in 1996 than in 1984 or 1987, the 1996 proportion was no different from the 1993 proportion. In 1996, there were more hazardous drinkers among male current drinkers aged 12-15 than in any other survey period. Among 16- and 17-year-olds, there were more current drinkers in 1996 than in 1993 or 1990, and more male and female current drinkers were drinking at hazardous levels in 1996 than in 1987 and 1990. Extrapolating from the 1996 findings, nearly 424 000 students aged 12-17 years were current drinkers.

White VM, Hill DJ, Letcher TR. *Drug Alcohol Rev* 2000;19:371-9.

BITS 'N PIECES

Increasing paramedics' comfort and knowledge about children with special health care needs

Abstract: This study evaluated a continuing education program for paramedics about children with special health care needs (CSHCN). Pretraining, posttraining, and follow-up surveys containing two scales (comfort with CSHCN management skills and comfort with Pediatric Advanced Life Support [PALS] skills) were administered. Objective measures of knowledge were obtained from pre- and posttraining tests. Differences in average scores were assessed using t-tests. Response rates for paramedics completing the program ranged from 94% for the posttraining survey, 81% for the initial comfort survey, 56% for the knowledge pretest, and 56% for the follow-up survey. PALS comfort scores were significantly higher than CSHCN comfort scores both before and after training, both $P < .01$. Posttraining surveys showed an increase in CSHCN comfort, $P < .01$. The follow-up surveys showed a significant decline in CSHCN comfort, $P = .05$. Scores on the tests showed a similar pattern, with a significant increase in knowledge from pre- to posttraining ($P = .02$) and a significant decrease in knowledge from posttraining to follow-up ($P < .01$). Comfort was significantly higher for standard pediatric skills than for specialized management skills. Completion of the self-study program was associated with an increase in comfort and knowledge, but there was some decay over time.

Spaite DW, Katherine J, Karriker KJ, Seng M, Conroy C, Battaglia N, Tibbitts M, Meislin HW, Salik RM, Valenzuela TD. *Am J Emerg Med* 2000;18:747-52.