

## SHORT REPORT

## Genital herpes: general practitioners' knowledge and opinions

N Narouz, P S Allan, A H Wade

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**Objectives:** To evaluate GPs' knowledge about genital herpes, especially recent information and to assess their attitudes towards serotesting.

**Methods:** GPs working in Coventry and the surrounding area were asked to complete an anonymous questionnaire.

**Results:** 70% of GPs (183 out of 261) responded to the questionnaire. Overall, 56% of the questions were answered correctly. 73% of participants knew that source partners in most transmission events are unaware of their infection and 77% were aware that patients shed the virus and transmit it even in the absence of clinical signs. As many as 43% did not know that the majority of infected individuals are unaware of their infection and 44% only knew that most transmission occurs during periods of asymptomatic shedding. Only 53% were aware that the proportion of genital herpes caused by HSV-1 is not decreasing. The majority (78%) supported the availability of its serotesting.

**Conclusions:** This study demonstrates the lack of knowledge, among studied GPs, in some areas about genital herpes, especially recent information and indicates the need for more education about the condition. Most GPs in the study support the availability of genital herpes serotesting, although more studies need to be done before the wide availability of this testing.

Genital herpes infection is the most common cause of genital ulceration, not only in the developed world, but also in many developing countries.<sup>1,2</sup> Its impact on the psychosocial and psychosexual life of many patients and its importance in HIV transmission are well recognised.<sup>3,4</sup> Neonatal herpes, although rare in the United Kingdom, is a devastating illness.<sup>5</sup>

Diagnosis of genital herpes is increasing. In developed countries, it is estimated that as many as 20% of the general population may be herpes simplex virus type 2 (HSV-2) seropositive. Seroprevalence rates as high as 60–90% have been reported in several developing countries.<sup>6,7</sup> Seroprevalence rates among genitourinary clinic attenders in London were found to be 25% in females and 17% in males, while in the control group of blood donors, the corresponding rates were 12% in females and 3% in males.<sup>8</sup>

Several recent developments have changed many of the traditional concepts about this infection.<sup>9–13</sup> Accurate type specific serological tests have been available for the last few years. While the presence of HSV-2 antibodies essentially confirms the previous genital herpes infection, the presence of HSV-1 antibodies indicates previous infection with HSV-1 without identifying the site of infection, which may be oral or genital.

Patients' attitudes have been assessed in previous studies.<sup>14</sup> However, no information is available about the knowledge or opinions of clinicians. General practitioners (GPs) are often

the first clinicians to see these patients. This study assessed GPs' knowledge of genital herpes, especially recent information about shedding, transmission, and clinical presentation. We also assessed their opinions regarding serotesting of genital herpes.

## METHODS

GPs working in Coventry (a metropolitan city outside London with a population of 320 000) and the surrounding areas of Warwick and Nuneaton were asked to complete an anonymous postal questionnaire. This questionnaire was divided into four sections: A, B, C, and D (table 1). A score of 1 was given to a "correct" answer to each of the questions (Q1–Q11) and a score of 0 (zero) was given otherwise.

## RESULTS

The questionnaire was sent to 261 GPs with 183 (70%) respondents. The results are summarised in table 1. The majority of GPs who supported the availability of serotesting would like to see this included in the routine screen for sexually transmitted diseases (STDs) compared to using it only in selected cases (76% compared with 21% respectively).

## DISCUSSION

Knowledge about genital herpes infection is generally acknowledged to be unsatisfactory among both patients and clinicians. It is essential that clinicians receive up to date information in order to improve counselling and management of patients. We are not aware of any recently published study in the United Kingdom assessing clinicians' knowledge of genital herpes. This study demonstrates that more work is needed to ensure that GPs have received the recent information about genital herpes. Overall, only 56% of the answers were correct. Catotti *et al* in their study<sup>15</sup> reported that almost half of patients did not feel that their doctor was supportive, gave adequate treatment information, or was prepared or could answer questions effectively. Poor knowledge and negative attitudes need to be tackled by improved education. The Centers for Disease Control and Prevention (CDC), in the United States, has recently convened an advisory panel to address genital herpes prevention. One of the main recommendations of the panel is education of the healthcare providers and the public about the epidemiology, clinical manifestations, natural course, therapy, and transmission of genital herpes.<sup>16</sup>

The discovery of type specific antigens in HSV-1 and HSV-2, most notably glycoprotein (gG), has been successfully exploited to develop assays for the detection of type specific HSV antibody. This has opened a debate on the use of testing to improve diagnosis, management, and prevention of genital herpes. Several clinical situations have been suggested.<sup>17</sup> Those who are advocating testing<sup>18,19</sup> argue that it can improve diagnosis and control spread. The available preventive measures include the use of condoms, suppressive antiviral therapy, and counselling to modify sexual behaviour. Opponents,<sup>20</sup> on the

**Table 1** Results of the questionnaire

Questions	Correct answers (%)	Incorrect answers (%)	Not sure (%)	No answer (%)
<b>Section A: General questions about genital herpes</b>	<b>62</b>	<b>18</b>	<b>15</b>	<b>5</b>
<b>Q1:</b> Genital herpes is the commonest cause of genital ulceration in developed countries (T-F-NS)*	86	4	10	–
<b>Q2:</b> Proportion of HSV-1 causing genital herpes is decreasing (T-F-NS)	53	4	41	2
<b>Q3:</b> GU medicine clinic attendees have higher prevalence of genital herpes than general population (T-F-NS)	82	9	9	0.5
<b>Q4:</b> Incidence of neonatal herpes in UK per 100 000 live births (<2–20–200)	27	56	–	17
<b>Section B: Shedding, transmission, and clinical presentation</b>	<b>63</b>	<b>17</b>	<b>19</b>	<b>1</b>
<b>Q5:</b> Majority of infected individuals with genital herpes are unaware of their infection (T-F-NS)	57	28	15	–
<b>Q6:</b> Source partners in most transmission events are unaware of their infection (T-F-NS)	73	11	15	0.5
<b>Q7:</b> Patients shed the virus and transmit it even in absence of clinical signs (T-F-NS)	77	8	13	2
<b>Q8:</b> Most transmission occurs during periods of asymptomatic viral shedding (T-F-NS)	44	19	36	1
<b>Section C: Type specific serotesting of genital herpes</b>	<b>41</b>	<b>8</b>	<b>49</b>	<b>2</b>
<b>Q9:</b> Positive serological test for HSV-2 essentially indicates previous genital herpes infection (T-F-NS)	48	9	41	2
<b>Q10:</b> Serological testing can differentiate between HSV-1 and HSV-2 (T-F-NS)	43	3	51	3
<b>Q11:</b> Serological testing can differentiate between oral and genital HSV-1 infection (T-F-NS)	31	12	54	2
<b>Sections A + B:</b>	<b>63</b>	<b>17</b>	<b>17</b>	<b>3</b>
Sections A + B + C:	<b>56</b>	<b>15</b>	<b>26</b>	<b>3</b>
<b>Section D: Attitude towards genital herpes serotesting:</b>				
<b>Q12:</b> Do you support the availability of this testing (at the present time) at least in GUM clinics?	<b>Yes</b> 78%	No. 1.6%	Not sure 17.5%	No answer 2.7%
<b>Q13:</b> Do you see this testing used in routine screening for STDs or in selected cases?	<b>Routine</b> 76%	Selected cases 21%		No answer 3%

\* (T = true, F = false, NS = not sure. The correct answer, in bold, is in parentheses and following questions).

other hand, argue that there is no good evidence that preventive measures decrease transmission and that testing of asymptomatic patients will increase stress, anxiety, and relationship problems. They raise the issues of increasing the costs and of ignoring the importance of HSV-1. They also argue that neonatal herpes is rare in the United Kingdom and that predictive value of positive tests will be low within low prevalence populations. Screening of populations with low prevalence rate of genital herpes may not be justifiable at this stage. A test with a specificity of 95% and a sensitivity of 95% will only give a positive predictive value exceeding 50% when the population being tested has a prevalence of HSV-2 infection exceeding 5%.

In one study among genitourinary clinic attenders in Leeds,<sup>14</sup> 92% wanted to know their genital herpes serostatus and in another study in an antenatal clinic in London,<sup>21</sup> 80% of pregnant women were prepared to be screened. Ashley and Corey asked "patients are ready, are clinicians?"<sup>18</sup> This study indicates that the majority of GPs in Coventry and the surrounding areas of Warwick and Nuneaton (78%) support the availability of type specific serotesting in genitourinary medicine clinics. The number of GPs who were against this testing is very small (three out of 183). It would be interesting to know whether providing information (for example, information sheet) about genital herpes and its serotesting would have affected their decisions. We are not expecting all GPs to be aware of all controversies surrounding serotesting of genital herpes. However, this gives us an idea about their opinions at this stage of knowledge. It would also be interesting to assess the opinions of genitourinary physicians. A survey carried out among delegates at the annual meeting of the International Herpes Management Forum (IHMF) in 1999 showed 70% were in favour of judicious use of serology to test for HSV. Delegates at this forum usually have special interest in these issues. Further studies among other groups in different geographical areas are required.

This is a questionnaire study with its drawbacks. The response rate to the questionnaire was good (70%). GPs are

usually too busy to complete and return such questionnaires. We have no data on the opinions of those who did not send the questionnaire back, although we believe that it is unlikely to have significantly affected the outcome.

Genital herpes serological testing is a welcome advance. We believe that the use of this testing in selected cases could be very useful although more studies about its cost effectiveness are needed before any widespread use. It is important to evaluate the level of knowledge and the attitude among patients and clinicians in order to examine the use of such testing in further clinical practice and to plan a strategy for prevention and management of this infection.

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#### CONTRIBUTORS

NN, PSA, and AHW designed the study; NN conducted the work, collected the data, and wrote the draft of the manuscript; PSA and AHW supervised the study and reviewed the manuscript.

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#### Authors' affiliations

**N Narouz, P S Allan, A H Wade**, Department of Genitourinary Medicine, Coventry and Warwickshire Hospital, Coventry, UK

Correspondence to: Dr N Narouz

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#### REFERENCES

- Schomogyi M**, Wald A, Corey L. Herpes simplex virus-2 infection: an emerging disease? *Infect Dis Clin North Am* 1998;**12**:47–61.
- Morse SA**, Trees DL, Htun Y, *et al.* Comparison of clinical diagnosis and standard laboratory and molecular methods for the diagnosis of genital ulcer disease in Lesotho: association with human immunodeficiency virus infection. *J Infect Dis* 1997;**175**:583–9.

- 3 **Carney O**, Ross E, Bunker C, *et al.* A prospective study of the psychological impact on patients with a first episode of genital herpes. *Genitourin Med* 1994;**70**:40–5.
- 4 **Fleming DT**, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect* 1999;**75**:3–17.
- 5 **Tookey PA**, Peckham CS. Neonatal herpes simplex virus infection in the British Isles. *Paediatr Perinat Epidemiol* 1996;**10**:432–42.
- 6 **Nahmias AJ**, Lee FK, Beckman-Nahmias S. Seroepidemiological and sociological patterns of herpes simplex virus infection in the world. *Scand J Infect Dis* 1990;**S69**:19–36.
- 7 **Gwanzura L**, McFarland W, Alexander D, *et al.* Association between human immunodeficiency virus and herpes simplex virus type 2 seropositivity among male factory workers in Zimbabwe. *J Infect Dis* 1998;**177**:481–4.
- 8 **Cowan FM**, Johnson AM, Ashley R, *et al.* Antibody to herpes simplex type 2 as a serological marker of sexual lifestyle in populations. *BMJ* 1994;**309**:1325–9.
- 9 **Mertz GJ**. Epidemiology of genital herpes infections. *Infect Dis Clin North Am* 1993;**7**:825–39.
- 10 **Koutsky LA**, Ashley RL, Holmes KK, *et al.* The frequency of unrecognised type 2 genital herpes simplex virus infection among women: implications for the control of genital herpes. *Sex Transm Dis* 1990;**17**:90–4.
- 11 **Koutsky LA**, Stevens CE, Holmes KK, *et al.* Underdiagnosis of genital herpes by current clinical and viral-isolation procedures. *N Engl J Med* 1992;**326**:1533–9.
- 12 **Mertz GJ**, Benedetti J, Ashley R, *et al.* Risk factors for the sexual transmission of genital herpes. *Ann Intern Med* 1992;**116**:197–202.
- 13 **Bryson YJ**, Dillon M, Bernstein D, *et al.* Risk of acquisition of genital herpes simplex virus type 2 in sex partners of persons with genital herpes: a prospective couple study. *J Infect Dis* 1993;**167**:942–6.
- 14 **Fairley I**, Monteiro EF. Patient attitudes to type-specific serological tests in the diagnosis of genital herpes. *Genitourin Med* 1997;**73**:259–62.
- 15 **Catotti DN**, Clarke P, Catoe KE. Herpes revisited—still a cause for concern. *Sex Transm Dis* 1993;**20**:77–80.
- 16 **Handsfield HH**, Stone KM, Wasserheit JW. Prevention agenda for genital herpes. *Sex Transm Dis* 1999;**26**:228–31.
- 17 **Cowan FM**. Testing for type-specific antibody to herpes simplex virus – implication for clinical practice. *JAC* 2000;**45**(T3):9–13.
- 18 **Ashley RL**, Corey L. HSV type specific antibody tests: patients are ready, are clinicians? *Genitourin Med* 1997;**73**:235–6.
- 19 **Corey L**. Raising the consciousness for identifying and controlling viral STDs: fears and frustrations. *Sex Transm Dis* 1998;**25**:58–69.
- 20 **Brugha R**, Brown D, Meheus A, *et al.* Should we be screening for any asymptomatic HSV infections? *Sex Transm Infect* 1999;**75**:142–4.
- 21 **Vonau B**, Low-Beer N, Barton SE, *et al.* Antenatal serum screening for genital herpes: a study of knowledge and attitude of women at a central London hospital. *Br J Obstet Gynaecol* 1997;**104**:347–9.

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