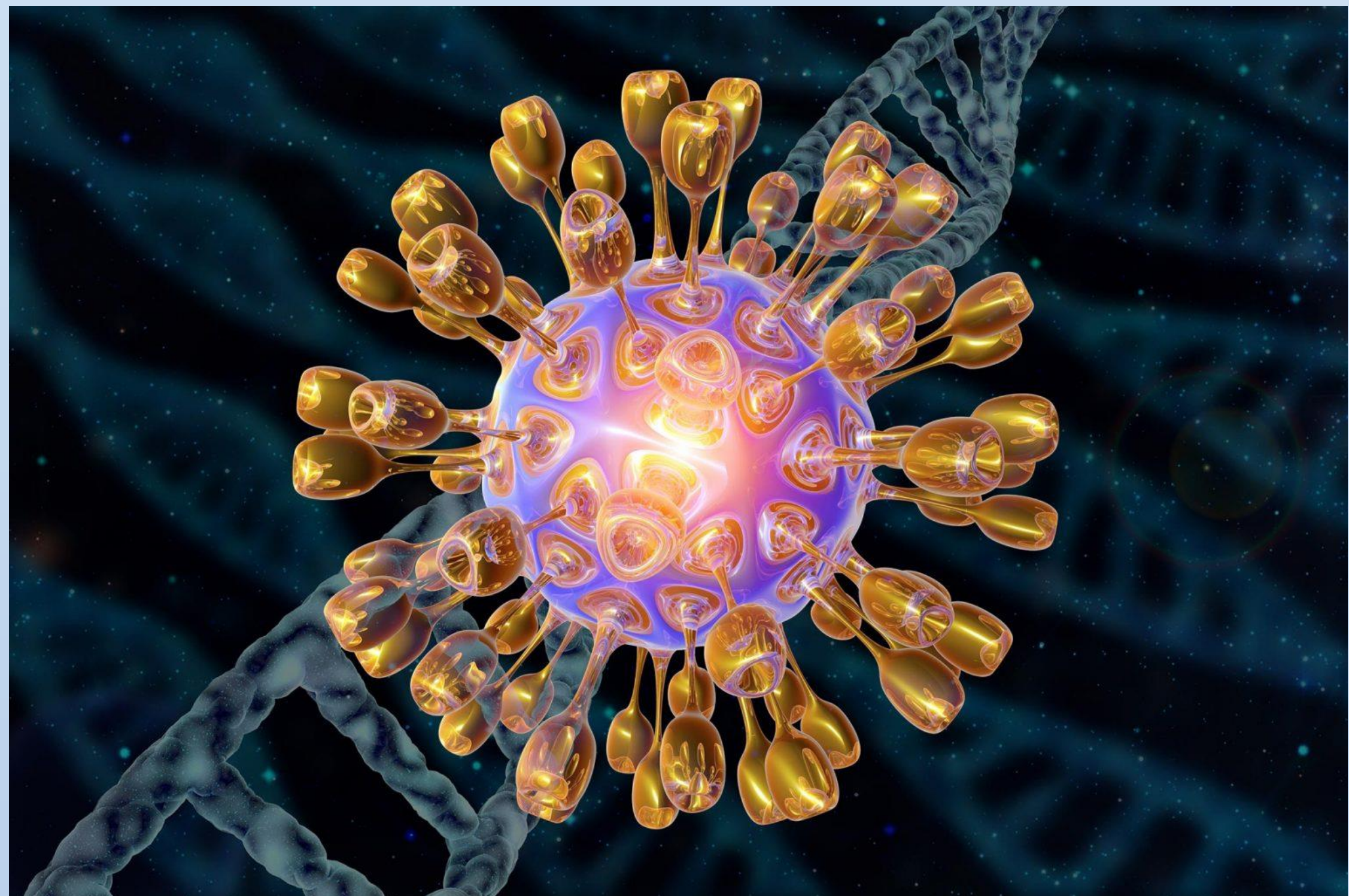


The multidisciplinary dilemma of pain management and anaesthesia choice for a pregnant patient with genital herpes or HSV

Harha Y, Wahba S, Pieretti C and Sheehan C

West Middlesex University Hospital, London, UK



Introduction. Herpes Simplex Virus (HSV) affects 2-3% of pregnancies [1] and may pose challenges for anaesthetic management. Neuraxial anaesthesia is considered safe in cases of recurrent herpes, however, its use is controversial in an initial episode of active genital herpes [2]. Moreover, it can be difficult to distinguish clinically between recurrent and primary genital HSV infections, as many first noted episodes of HSV are not true primary infections [1], which can affect both - the clinical decision on the delivery mode and the anaesthetic choice.

We are presenting a case of an obstetric patient with a first episode of HSV vulvovaginitis with a complex intractable pain culminating in suspected placental abruption and Caesarean delivery.

Case report. A 32-week pregnant primigravida woman presented to our anaesthetic team for acute pain management due to a primary episode of genital herpes. She suffered from recurrent urinary tract infections (UTIs) caused by a multi-resistant E.coli and Group B Streptococcus over the pregnancy and was completing a course of cefalexin. Despite antimicrobial therapy symptoms were deteriorating, vaginal pain was worsening, and she noted sores in the vagina. An examination under Entonox revealed ongoing vulvovaginitis and thrush, and a vaginal swab showed HSV1. She was admitted to the maternity unit for pain management (IV paracetamol, oral codeine, and oral morphine PRN) and started on antiviral therapy according to the Royal College of Obstetricians and Gynaecologists (RCOG) guidelines. The serology was taken and the results were awaited. By Day 3, despite analgesia, the pain remained marked and causing significant distress. She had developed paraesthesia and hypersensitivity to touch, significantly impacting her ability to sleep. Importantly, she also developed an “irritable uterus”—abdominal pain was coming and going with a soft abdomen and uterus between episodes. CTG did not show activity typical for contractions. There was a discussion about whether the patient should be continued on oral opioids (Morphine) or she might be commenced on PCA with Remifentanyl (but being discounted due to the patient not being designated as ‘in labour’). Despite the normal appearance of the placenta on the scan, a decision was made for Caesarean delivery for a possible abruption of the placenta as it was still difficult to exclude taking into account the progression of the abdominal pain. In theatre, an epidural catheter at L3-L4 level was inserted, and epidural anaesthesia at a level of T4 was achieved with incremental boluses of “fast mix” (mixture of 2% lidocaine with bicarbonate and adrenaline).

The Caesarean section was uncomplicated, and she recovered well. On examination, there was evidence of small placenta abruption at delivery (small retroplacental clot and bleeding noted behind the placenta). Postoperative pain relief included regular paracetamol, ibuprofen, and morphine on request. She recovered well and was discharged on the 3rd day following surgery. The final serology testing revealed that the vulvovaginitis was due to the recurrent infection.

Discussion. It can be difficult to distinguish clinically between initial and recurrent genital HSV infections, as in up to 15% of cases where mothers and pregnant people present with a first episode of clinical HSV infection, it will be a recurrent infection [1]. The 2024 Joint Guideline [1] suggests that until results of HSV serology are received, an initial plan of delivery should assume that all first-episode lesions are initial genital herpes. This plan can then be modified if HSV antibody test results subsequently confirm a recurrent, rather than primary/non-primary, infection [Grade of recommendation 1D]. As interpretation of serology is complex, results should be discussed with a virologist or a genitourinary medicine physician [1D].

Although both spinal and epidural anaesthesia appear to be safe alternatives for patients with secondary HSV infections undergoing caesarean delivery, neuraxial blockade remains not recommended in primary herpes infections because these patients have viraemia [2]. There is a theoretical advantage in using epidural rather than spinal anaesthesia because an epidural needle does not breach the dura and theoretically would lessen the risk of introducing the virus into the central nervous system [2]. However, this is a theoretical assumption only and has not yet been proven in clinical trials. Another theoretical precaution that prevents from performing spinal anaesthesia is that it can be difficult to distinguish a cause of possible neurological deficiency between HSV infection progression (encephalitis, meningitis) and potential complications of neuraxial anaesthesia.

The pain syndrome developed in the patient most likely had a complex character where different components should be considered and treated (inflammation (UTI and HSV), neuropathic pain (HSV), somatic pain (queried placental abruption), background of anxiety/depression. Also, HSV-related pain syndrome can mimic or potentiate other sources of pain that can lead to the potential danger of missing life-threatening conditions in pregnancy. Dysfunction of the CNS is the most likely explanation for the widespread pain in patients with HSV infection [3]. During the last decades, it has become obvious that the glia, besides the neurons, play an important role in neuropathic pain. Glia cells are immunologically active. They can be activated by bacteria, trauma, or viruses such as HSV [3].

It requires a very careful assessment of pregnant patients with HSV and a multidisciplinary approach to create the best plan of action.

References

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