13.10.7 Acute herpetic neuralgia

Acute herpetic neuralgia (AHN) results from reinfection by herpes varicella viruses that were dormant in a dorsal root ganglion or trigeminal ganglion for several years. The incidence of AHN increases with age. The pain of AHN often starts as paraesthesia, allodynia, hyperalgesia and dysaesthesia (aching, severe itching, burning and electric shock-like pain). These symptoms often precede the typical dermatomal herpes zoster vesicular rash. In approximately 15% of patients, AHN is complicated by PHN (i.e. persistence of pain for more than three months after the rash has disappeared). Approximately 50% of patients experience pain for longer than a year.

Administering an antiviral agent within 72 hours and early medication for ANP decreases the incidence of PHN, which is often difficult to manage.

Systemic treatment should be offered as soon as possible. The systemic agents recommended for AHN is the same as for ANP, namely a TCA, gabapentin or pregabalin, and an opioid (oxycodone or morphine). Lidocaine 5% should be offered. Aspirin in ointment or cream may be tried.

A single application of a capsaicin 8% patch provides pain relief for up to 12 weeks and does not have any systemic adverse effects. Application of the patch causes pain or discomfort for approximately 6 hours, but is well tolerated. Patients with more pain before the application of the patch experience less capsaicin-related discomfort than patients with less pain. Adverse effects are limited to transient local erythema and treatment-related discomfort.

13.11 HIV-associated pain

Pain is a common symptom in people infected with HIV, with the prevalence ranging from approximately 30% in the early stages of infection, to 80% in those with acquired immunodeficiency syndrome (AIDS).

Pain relating to HIV/AIDS may be due to the following:

- The effects of HIV on the peripheral or CNS (neuropathic pain).
- Opportunistic infections or neoplasms as a result of immunosuppression.
- Antiretroviral drugs (ARVs) that may be neurotoxic. However, the prolonged use of highly active antiretroviral therapy (HAART) decreases the prevalence and severity of neuropathic pain.

As for any patient presenting with pain, anatomical, physiological, pharmacological, grading (distribution, type, duration, etc.) and psycho-social factors should be assessed to guide appropriate management. Nociceptive pain is treated with 'typical' analgesics, while neuropathic pain is treated with 'atypical analgesics'.

Pain in HIV patients is frequently undertreated. Clinician-, patient- and system-related factors account for this, including underestimation of pain by the clinician, fear of analgesic adverse effects by the clinician and patient, and drug interactions between analgesics and ARVs.

13.11.1 Principles of managing HIV-related pain

Management of the pain must be individualised and directed, depending on the type of pain; whether nociceptive or neuropathic (Table IV). *Acute nociceptive pain* is managed according to the guidelines discussed under acute nociceptive pain, but may fail to relieve ANP. ANP is managed according to the guidelines discussed above.

Since the use of HAART decreases the occurrence of opportunistic infections, including that of the CNS, peripheral sensory polyneuropathy has become the most important HIV-related neurological complication. The most common forms of sensory neuropathy are infection-related distal sensory polyneuropathy (direct nerve injury by the virus, and effects of viral protein coat on chemokines and cytokines) and antiretroviral-induced mitochondrial dysfunction causing a toxic neuropathy.

Amitriptyline is not effective in the management of HIV-related neuropathic pain. *Gabapentin* improves pain and sleep disturbances, but *pregabalin* is ineffective. *Lamotrigine* of approximately 4 mg/kg/day relieves pain in HIV-related neuropathic pain. The lidocaine 5% patch and high-dose capsaicin cream are effective.

Table IV: Recommended approach to pain in HIV/AIDS

Pain	Aetiology	Treatment
HIV-related neuropathic pain	HIV, HAART (stavudine, didanosine), isoniazid, neoplasms, oncotherapy, herpes zoster	Gabapentin or lamotrigine, topical lignocaine and capsaicin
Abdominal pain, headache	Infections, neoplasms	As for nociceptive and neuropathic pain
Oral, pharyngeal pain	Aphthous ulcers, herpes simplex virus, cytomegalovirus ulcers, necrotising gingivitis	Antibiotics for gingivitis, oral or IV acyclovir, or oral valacyclovir, are used for HSV Mouthwash containing benzydamine and topical corticosteroids
Genital ulceration	Herpes simplex	Acyclovir or valacyclovir, plus standard analgesia
Stroke	Spasticity, muscle spasms	Oral baclofen as the first choice, and diazepam and dantrolene alternatively
Central neuropathic pain	Following a stroke or intracranial neoplasms	Gabapentin, SSNRIs, IV morphine

Oesophageal pain and odynophagia	Candida, cytomegalovirus, aphthous ulcers, herpes simplex	Upper endoscopy ulcer appearance, biopsy and viral cultures help to make a definitive diagnosis Oral fluconazole 200–400 mg/day for 14–21 days, or IV if patient cannot swallow Treat HSV with acyclovir 15 mg/kg/day IVI or 200 mg 5 times/day p.o. for 14–21 days For CMV, ganciclovir IVI (but has many adverse effects)
Kaposi sarcoma	Malignancy	Analgesics, radiotherapy
Herpes neuropathy	Herpes zoster	Early treatment of PHN with antiviral agent and TCA

13.12 Acute cancer pain

This section focuses on nonsurgical pain in the palliative scenario. The aim of analgesia in this setting is a VAS of < 4/10 with movement. The analgesic plan may differ from the approach to nonmalignant pain, as the focus is more on patient comfort, while concerns about adverse effects are more in the background. Both the patient and the caregivers must understand this approach. Of course, this does not mean that clinicians have the freedom to prescribe drugs at dosages that may cause harm, even in uncompromised patients. Caregivers should take note of patients' complaints, fears and concerns. No drug can replace empathy.

Changes in the characteristics of pain may signify progression of local or distant disease, a transition from acute nociceptive pain to ANP (CNP or PNP) or from acute to chronic pain, an appearance of drug tolerance, or changes in drug clearance due to a decline in vital organ function (cardiac, hepatic, renal, blood), and psychological changes (e.g. anxiety and depression). Moreover, the adverse effects of oncotherapy often cause severe pain. These include oncotherapy-related peripheral neuropathy and oral mucositis. The oncotherapy-related pain of mucositis can be treated effectively with a ketamine mouthwash. The concentration is 4 mg/ml and the dose is 5 ml (20 mg) 4-hourly, if necessary. The patient must rinse their mouth for a few minutes and then spit out the solution.

Patients and caregivers must take part in the analgesia plan; they should know what to expect, what to look for, how to manage adverse effects, how to adjust doses, and when to seek help.

Nociceptive and neuropathic pain is managed according to guidelines as discussed above; often a combination of drugs is used for both types of pain. Regarding opioids, long-acting dosage forms, namely slow-release oral tablets and transdermal delivery systems (patches), are often used. Transition from short-acting oral or IV opioids to sustained-release tablets or patches is usually not complicated. The total daily dose of a short-acting or parenteral dosage form is determined, and then replaced by the long-acting form. This can be done for an IVI to patch, short-acting oral to long-acting, or even from one opioid to another using the daily MME