There are occasions when optimum pain control in a patient is difficult due to unacceptable side effects of medications for example delirium or extreme drowsiness or the medications prescribed are ineffective in controlling pain. When pain is localised and regional, it may be possible to deliver analgesia directly to the roots of the nerves involved in relaying pain messages.

The system used in Palliative care is an intrathecal which involves:

1. A procedure by a trained Pain Specialist to insert a fine catheter into the intrathecal space. This must be a strictly aseptic technique in an Operating theatre. See Infection Prevention and Management Guidelines - Aseptic Technique.
2. This is tunnelled under the skin to the anterior abdominal wall so as to enclose as much of the system as possible to reduce the risk of infection.
3. The end of the catheter is either left free and attached to a filter or attached to a subcutaneous port so that the entire system is embedded. The latter is a more expensive option.
4. If the catheter is free ending, it is connected via the filter to a pump e.g. a CADD. If it is an embedded port, then this is needled similar to a chemotherapy port and attached to the pump.
5. The medications needed are mixed in the sterile pharmacy and contained in a bag or cassette.
6. The medication is delivered via a continuous infusion to the nerves involved. This results in less medication circulating systemically, causing unwanted side effects.

**Indications for Intrathecal**

1. Sub-optimal pain relief especially when accompanied by intolerable side effects.
2. Localised site of pain - very useful for pelvic pain and limb pain. It is not useful for generalised pain.
3. When there is a poor prognosis with only a few weeks.
4. It is reversible and can be used in the short term when definitive management of the cancer is a possibility, as an interim analgesic regime until chemotherapy takes effect.
Advantages

1. It gives better pain control with much less systemic side effects.
2. The pump has a bolus function which allows rapid pain relief when needed.
3. The pump is tamper proof.
4. It is portable so the patient can be mobile and functional.
5. Usually medication induced delirium and drowsiness will reverse and allow the patient to function mentally and emotionally to retain activities of daily living.
6. It can be managed in the community by the Silver Chain Hospice Service. The cassettes will have to be supplied by the tertiary hospital that inserted the intrathecal.

Disadvantages

1. Requires procedure by trained pain specialist and often requires transfer to a tertiary hospital.
2. It requires admission for the procedure and for a few days while the analgesics are titrated to optimum effect.
3. It involves puncturing the skin and hence infection is a possible risk. In addition, there is a possibility of the infection spreading into the spinal canal and resulting in meningitis.
4. If a local anaesthetic is used there maybe loss of sensory and motor functions. For example there maybe loss of bladder functions requiring an in-dwelling catheter. There may be loss of limb power or paresis to some degree. Usually in these circumstances there has been some loss of power pre-procedure.
5. The patient is attached to a mechanism. It is portable but nonetheless can still be inconvenient.
6. The CADD is not water proof and so precautions must be taken in the shower. It needs to be meticulously protected by a waterproof container e.g. an bag.
7. It requires support in the community by trained nurses.

If you think an intrathecal might be useful, please inform the Palliative Care Consultant.
For guidance on programming and use and intrathecal care, please refer to Resource Manual.

Please refer to the WA Cancer and Palliative Care Network for patient information on Intrathecal Pathway- Perth Metropolitan Intrathecal Catheters and Infusions for pain management
Palliative Care: Intrathecal administration of medications

References and resources

WA Cancer and Palliative Care Network

Related policies

Related WNHS policies, procedures and guidelines

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