

These are not recommended by ASG who believe that ANY invasive procedure carries a significant risk of exacerbating the inflammation of arachnoiditis, thereby worsening the patient's condition.

However, as always, it must be a question of weighing up possible benefits against possible risks, and individual needs must be assessed.

INA (Intraspinal narcotic analgesia): the "pump". This was originally developed for use in terminally ill cancer patients and thus was not being used long term. Of the studies of long term pump use, there are varying opinions as to its safety and efficacy.

One recent paper states: "About one third of the patients get good long-term pain relief without.

Complications or side effects, many require the addition of local anesthetics, and some never get effective relief. There are major questions to be answered before this form of therapy becomes widely disseminated."([11](#))

Opiates are often supplemented with either local anaesthetics such as bupivacaine, or antispasmodics such as baclofen.

It is vital to ensure that preservative free solution is used.

Adverse effects of INA such as constipation, nausea, vomiting and itching tend to be short-term, whereas loss of libido and potency may persist for several months. The most persistent side-effects are sweating and oedema, the latter of which may necessitate INA being

discontinued. The most serious adverse effect is respiratory depression

Spinal Cord Electrostimulation (SCS) involves electrical stimulation by implanted electrodes around the spinal cord, (in the epidural space), in the area that is most involved in causing pain. The very low energy current shuts down the input of pain fibres.

Success rates seem to vary in different studies but are overall approximately 50% when all types of chronic pain are considered, and the benefits may decrease with time.

However, there is little literature on its efficacy in the specific case of arachnoiditis. Kumar ([\[iii\]](#)) suggests that there is a favourable response to treatment of postsurgical arachnoiditis or perineural fibrosis if the pain is predominantly confined to one lower extremity.

Meilman et al ([\[iii\]](#)) also state that SCS is of greater efficacy for unilateral lower limb pain than for more widespread nerve root involvement. It is best for controlling the dull, constant pain and poor for the sharp, lancinating pain. SCS may also be useful for neurogenic bladder problems. ([\[iv\]](#))

Surgical treatment is generally regarded to have a low success rate. Resection of scar tissue is often followed by recurrence. Some specialists are now using laser techniques, but data on the outcomes is limited.

Epidural steroid and local anaesthetic injections: these are of questionable (and temporary) benefit and carry a risk of causing the very problem they are being used to treat.

O'Connor et al ([\[v\]](#)) sum up the situation by stating that the

"abnormalities of the epidural and subarachnoid spaces in such patients"(i.e. with

chronic spinal arachnoiditis)...

gives rise to

"unpredictable and potentially dangerous results" following drug injection into these spaces.

Local nerve blocks.

For those patients who have been diagnosed with RSD, sympathetic blockade may be offered. However, the literature is divided as to the efficacy of these techniques.

Whilst they may be of use in the initial phases of the condition, when sympathetically maintained pain (SMP) is predominant, once central sensitization occurs (and thence what is termed "sympathetically independent pain: SIP") they are much less likely to be effective.

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- [i] James A. Stangl and John D. Loeser: *Current Review of Pain* 1997 1: 353-360. Intraspinal Opioid Infusion Therapy in the Treatment of Chronic Nonmalignant Pain [Review article]
 - [ii] Kumar K, Nath R, Wyant GM *J Neurosurg* 1991 Sep; 75(3): 402-7 Treatment of chronic pain by epidural spinal cord stimulation: a 10-year experience.
 - [iii] Meilman PW, Leibrock LG, Leong FT *Clin J Pain* 1989 Jun; 5(2): 189-93 Outcome of implanted spinal cord stimulation in the treatment of chronic pain: arachnoiditis versus single nerve root injury and mononeuropathy. Brief clinical note.
 - [iv] Ronzoni G, De Vecchis M, Rizzotto A, Raschi R, Cuneo L *Ann Urol (Paris)* 1988; 22(1): 31-4 [Long-term results of spinal cord electrostimulation in the treatment of micturition disorders associated with neurogenic bladder].
 - [v] O'Connor M, Brighthouse D, Glynn CJ *Clin J Pain* 1990 Sep; 6(3): 240-2 Unusual

complications of the treatment of chronic spinal arachnoiditis.