Lumbar sympathetic chain neuromodulation with implanted electrodes for long-term pain relief in loin pain haematuria syndrome.

Goroszeniuk T, Khan R, Kothari S.

Abstract

INTRODUCTION: Loin pain-hematuria syndrome (LPHS) is a rare clinical entity causing unilateral or bilateral intractable flank and loin pain with hematuria. The etiology is poorly understood, and the diagnosis is made by exclusion of urological and nephrological conditions. The management is mainly symptomatic aiming for pain relief with nonopioid and opioids analgesics, and interventions such as capsaicin infusion into the renal pelvis, percutaneous regional nerve blocks, and laparoscopic or open surgical procedures, none of them providing lasting pain relief.

METHODS: We describe four cases of LPHS in which long-term pain relief was achieved successfully by neuromodulation of lumbar sympathetic plexus with implanted electrodes. All patients underwent an initial successful trial of neuromodulation with Stimulong monoelectrode (Pajunk, GmbH, Geisingen, Germany) inserted percutaneously to lie adjacent to L3-L4 vertebral bodies followed by permanent implantation of the stimulation system using four contact electrodes (Medtronic Inc, Minneapolis, Minnesota, USA) in two patients with excellent long-term pain relief.

RESULTS: All our patients had significant reductions in visual analog scale scores and analgesic consumption for the duration of the monoelectrode trial and in one patient beyond six months. Of the two patients who had full implants, pain relief is excellent with minimal analgesic consumption and one has resumed employment. There were no complications.

DISCUSSION: LPHS is very difficult to treat with some experts maintaining it is mainly psychological. Conservative treatments are often unsatisfactory and radical measures not reliable. Peripheral stimulation of nerves and plexuses has been successful as shown from case reports. All our patients preferred low-frequency stimulation although its precise mode
of action is uncertain.

**CONCLUSION:** Our experience shows that lumbar sympathetic chain neuromodulation in intractable LPHS not amenable to conservative therapy is a reasonable alternative before radical interventions. More experience is needed in multiple centers before its recommendation for refractory LPHS.

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