



Patient Information

Restless Legs Syndrome & Surgery

(*Restless Legs Syndrome Foundation – adapted from “Surgery and RLS, Special Considerations for the Surgical Team”*)

RESTLESS LEGS SYNDROME (RLS) is a distinctive but often unrecognized or misdiagnosed sensorimotor disorder. In 1995, the International RLS Study Group published the primary and associated features of the disorder (Table 1). The pathophysiology and etiology of this illness are not known. Restless legs syndrome is found at an increased incidence in patients with iron deficiency, with or without anemia; end-stage renal disease; and polyneuropathy. A disturbance in the dopamine or opioid systems is assumed to be the cause of RLS, resulting in a disinhibition of spinal neurons in the resting state. Therapeutic agents of choice include primarily dopamine-receptor agonists, levodopa, or opioids and, secondarily, benzodiazepines or antiepileptic medications (Table 2). Most patients are treated with dopamine-agonist monotherapy.

A combination therapy consisting of dopamine-receptor agonists and opioids is not uncommonly required in severe cases. Dopamine-agonist therapy should be maintained preoperatively for as long as possible (i.e., until immediately before the operation). Levodopa therapy can be briefly interrupted and resumed postoperatively at its full dose. The use of dopamine agonists may pose more of a challenge, since gastrointestinal and autonomic nervous system side effects are sometimes more prominent when the dose is rapidly reestablished. Particular attention should be paid to Restless Legs Syndrome patients in the immediate postoperative period as quiescence often exacerbates the need to move. This may be severe enough to manifest as agitation.

Because postoperative immobilization, pain, and sleep-deprivation tend to worsen symptoms, the use of opioid-containing medications should be considered before, during, and after the operation to the extent possible. Parenterally administered narcotic medications (morphine sulfate, fentanyl, meperidine hydrochloride, hydromorphone hydrochloride) may be used if opioids cannot be administered orally. Where necessary and clinically appropriate, continuous indwelling intrathecal or epidural catheters for longer-term postoperative narcotic administration should be considered.

In some patients with RLS receiving epidural or spinal anesthesia, involuntary leg movements have been found to persist and interfere with the operation. In such cases, a narcotic agent (e.g., morphine), in addition to the local anesthetic, may need to be administered in the epidural or intrathecal space.

Based on clinical experience, theoretical considerations, and limited scientific studies, a variety of drugs typically used in the perioperative period are believed to have the potential to exacerbate symptoms of RLS (Table 3). Antagonists of dopamine or opioid receptors can worsen RLS symptoms, and their use should be avoided, especially in the stress-filled perioperative period. This includes the use of metoclopramide and similar antiemetic agents. Although the use of most tricyclic and selective serotonin reuptake inhibitor antidepressants may exacerbate RLS in some patients, those people who are currently taking such medications should continue to do so. However, these drugs should preferably not be started acutely in the post-operative period.

Randomized controlled trials of agents typically used in the practice of anesthesia have not been performed in patients with RLS.

TABLE 1. PRIMARY RLS FEATURES

- Compelling urge to move the affected limb (most often the leg)
- Paresthesias deep in the limb
- Exacerbation of symptoms during periods of rest and inactivity
- Relief of the urge to move and paresthesias with movement
- Strong circadian component, with a worsening of symptoms in the evening and at night

TABLE 2. SUBSTANCES THAT MAY BE USEFUL IN TREATING RLS

- Levodopa/carbidopa (Sinemet) or dopamine agonists (e.g., pergolide, pramipexole or ropinirole)
- Opioids (e.g., tilidine, dihydrocodeine, oxycodone, hydrocodone, transdermal fentanyl)
- Benzodiazepines (e.g., clonazepam, diazepam)
- Antiepileptics (carbamazepine, gabapentin)

TABLE 3. SUBSTANCES THAT SHOULD NOT BE GIVEN TO RLS PATIENTS

- Neuroleptic agents (butyrophenones, including droperidol; phenothiazines)
- Tricyclic, tetracyclic, or selective serotonin reuptake-inhibiting antidepressants (except as part of current therapeutic regimen)
- Opioid antagonists (naloxone, naltrexone, Talwin NX)
- Antiemetic agents with dopamine-antagonist properties (metoclopramide HCl, prochlorperazine, promethazine HCl)