

Editorial

Doctor, will my sleep improve after the rotator cuff surgery?

Mitchel¹, Erica Kholinne MD, PhD²¹Faculty of Medicine and Health Sciences, Atma Jaya Catholic University of Indonesia²Faculty of Medicine, Universitas Trisakti, Department of Orthopaedic Surgery, St. Carolus Hospital, Jakarta, Indonesia

A rotator cuff tear (RCT) is one of the most common causes of disability and shoulder pain, especially in older individuals due to age-related degeneration. It is not uncommon for patients to experience sleep disturbances due to aggravated pain at night. However, only around 15% of people may have an asymptomatic RCT.¹

Sleep disturbance is a common finding in patients with RCT. A systematic review showed that only 11% of symptomatic rotator cuff patients were without sleep disturbances.² The quality of sleep has become an important component of our health that requires attention in patients with a rotator cuff tear. Unfortunately, in the field of orthopedics, sleep disturbances were considered trivial and underappreciated, perhaps due to many related conditions that may contribute to sleep disturbances.

Horneff et al. reported that the prevalence of sleep disorders before rotator cuff repair may reach 89%, and 38% of patients may still experience sleep disturbances six months after the rotator repair.³ Following arthroscopic rotator cuff repair, sleep quality is reported to consistently improve to 47%.² This improvement is usually seen within six months after surgical repair of the RCT. However, residual sleep disorders after surgery were also reported to persist for as long as two years in 41% of patients who complained of sleep disturbances.³ Most patients undergoing rotator cuff repair experience sleep disturbances at night due to increased cytokine inflammation, which may persist even after two years.²

Recently, orthopedic surgeons have been trying to determine the cause, but it seems that sleep impairment is multifactorial. Night pain plays a significant role in sleep disturbances, but other associated factors such as female sex, depression, the presence of low back pain, diabetes mellitus, cervical involvement, and a BMI >25 kg/m² significantly affect sleep quality.⁴ Surgical factors may also be correlated with worse sleep quality, such as preoperative and prolonged postoperative narcotic pain medication (e.g., oxycodone) for more than six weeks, which decreases rapid eye movement and increases wakefulness.^{3,5}

Sleep disturbances may affect the circadian rhythm, the biological rhythm of the body with a near-24-hour period, which affects the behavior and physiology of most organisms.⁶ This would influence patient emotions, social interactions, and physical well-being, impairing the patient's quality of life. Furthermore, this would have a negative impact on

postoperative outcomes and patient satisfaction.⁷

It is important for the surgeon to counsel the patient regarding the healing timeline so that the patient can have appropriate expectations following a rotator cuff repair procedure.

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