

Meralgia Paresthetica-A Clinical Analysis

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ABSTRACT

Background: Meralgia paresthetica (MP) is a mononeuropathy of the lateral femoral cutaneous nerve (LFCN) characterized by pain, numbness and tingling in the anterolateral aspect of the thigh. The present study was conducted to assess the cases of Meralgia paresthetica. **Methods:** 58 cases of Meralgia paresthetica (MP) of both genders were included. In all cases, etiology, symptoms and side involved was recorded. **Results:** Out of 58 patients, males were 38 and females were 20. Clinical symptoms comprised of pain in 50 and Sensory impairment in 8. Right thigh was involved in 30 and left thigh in 28 cases. Etiology was lateral femoral cutaneous nerve (LFCN) lesion in 36 and idiopathic in 22 cases. The difference was significant (P<0.05). **Conclusion:** Most commonly right thigh was involved and lateral femoral cutaneous nerve lesion was most common etiology.

Keywords: Meralgia Paresthetica, lateral femoral cutaneous, Thigh.

INTRODUCTION

Meralgia paresthetica (MP) is a mononeuropathy of the lateral femoral cutaneous nerve (LFCN) characterized by pain, numbness and tingling in the anterolateral aspect of the thigh.^[1] Symptoms are mainly associated with injury or pressure on the nerve. The LFCN is a sensory nerve that originates from the first 3 lumbar nerve roots and travels along the postero-lateral aspect of the psoas over the iliacus muscle to the region of the antero-superior iliac spine (ASIS).^[2] It enters the anterior region of the thigh by passing under, through, or above the inguinal ligament. The nerve divides into anterior and posterior divisions at a variable distance from the ASIS.^[3] The anterior branch penetrates the fascia lata approximately 10 cm inferior to the ASIS, and supplies the skin over the anterolateral aspect of the thigh down to the knee. The smaller posterior branch innervates the skin over the greater trochanter down to the area supplied by the anterior branch.^[4]

MP has a higher predilection in adult males than females and can technically occur at all ages. Several investigators have also reported the occurrence of MP in various sports and physical activities including: gymnastics, baseball, soccer, body building, and strenuous exercise. Most of these investigations were case reports with no common correlation or injury mechanism

reported.^[5]

MP can lead to significant distress and disability, it is important to properly diagnose and treat this condition. Non-operative treatment includes rest and reduction of aggravating factors that could compress the nerve, oral medications (e.g. non-steroidal anti-inflammatory drugs (NSAIDs), antidepressants and other medications to relieve neuropathic pain), and local injections of anesthetics and corticosteroids.^[6] The present study was conducted to assess the cases of Meralgia paresthetica (MP).

MATERIALS AND METHODS

The present study comprised of 58 cases of Meralgia paresthetica (MP) of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. Initial management included oral medications, rest, and reduction of aggravating factors. Non responders underwent a diagnostic local anesthetic nerve block test. Patients who responded with transient symptomatic relief were treated by local infiltration of corticosteroids. Surgical intervention was reserved for patients with positive nerve block test, who did not respond to non-operative measures. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table 1: Distribution of patients

Total- 58		
Gender	Males	Females
Number	38	20

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[Table 1] shows that out of 58 patients, males were 38 and females were 20.

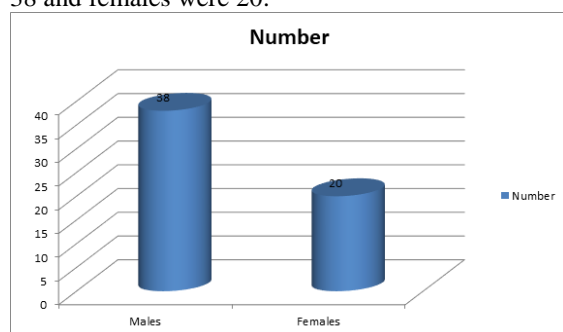


Figure 1: Distribution of patients

Table 2: Assessment of parameters

Variables	Parameters	Number	P value
Symptoms	Pain	50	0.01
	Sensory impairment	8	
Side	Right thigh	30	0.91
	Left thigh	28	
Etiology	Lateral femoral cutaneous nerve (LFCN) lesion	36	0.84
	Idiopathic	22	

[Table 2, Figure 2] shows that clinical symptoms comprised of pain in 50 and Sensory impairment in 8. Right thigh was involved in 30 and left thigh in 28 cases. Etiology was lateral femoral cutaneous nerve (LFCN) lesion in 36 and idiopathic in 22 cases. The difference was significant ($P < 0.05$).

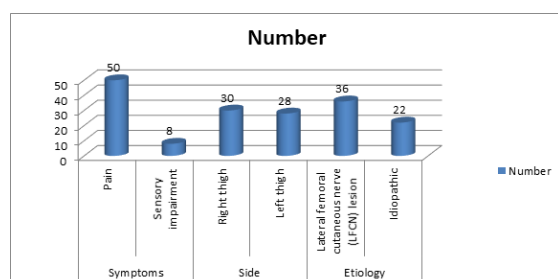


Figure 2: Assessment of parameters

DISCUSSION

MP can be categorized as either spontaneous or secondary to trauma or surgical procedures that may have injured the LFCN. It is a relatively uncommon condition; in a recent case-control study that used computerized data from a large cohort in the primary care setting, the incidence rate of MP was 4 per 10,000 individuals.^[7] The LFCN can be subjected to compression at several sites along its course, most commonly as the nerve exits the pelvis near—or at—the site where it pierces or crosses the inguinal ligament.^[8] Predisposing factors include external causes (e.g., wearing of seat belts, girdles, tight trousers, beepers or cellular phones), obesity, pregnancy.^[9] Local anesthetic nerve block is expected to result in rapid and

temporary relief of MP symptoms. Clinical conditions associated with upper lumbar nerve compression or intra-abdominal compression of the LFCN can mimic MP. In such cases, the local nerve block is not expected to relieve symptoms.^[10] The present study was conducted to assess the cases of Meralgia paresthetica (MP).

In present study, out of 58 patients, males were 38 and females were 20. Seror et al,^[11] in their study clinical and electrophysiological examinations in 131 cases of meralgia paresthetica (MP) among 120 unselected patients, 69 men and 51 women, aged 15-81 years was done. All patients experienced permanent or intermittent pain, and all but one had permanent sensory impairment of the thigh. The lateral aspect of the thigh was solely involved in 88 cases and the anterior aspect was also or exclusively involved in 32 cases. The right thigh was involved 62 times and the left 58 times. Symptom duration varied from 2 weeks to 20 years. The initial diagnosis was meralgia paresthetica in 47 cases (39%), root disease in 35 cases, and osteoarthritis in 6 cases; no diagnosis was proposed in the 32 remaining cases. Two cases had undergone previous spine surgery for disk herniation, with no benefit. A precise cause could explain the lateral femoral cutaneous nerve (LFCN) lesion in 46 cases, the other 74 cases being considered idiopathic (25% of patients were obese). Only one case required surgery to relieve symptoms. LFCN conduction was studied orthodromically, distally from the anterior superior iliac spine. The side-to-side amplitude ratio (ssRatio) was greater than 2.3 in 118 of 120 patients (98.3%) and was a better index to confirm a lesion of the LFCN than SNAP amplitude, which was abnormal (less than 3 microV) in 88 cases (73.3%). Only two of the 11 bilateral cases had an ssRatio lower than 2.3 (they were both 2.0). An ssRatio of 2.3 or more and a SNAP amplitude lower than 3 microV provided a specificity of 98.75% or more. The mean axonal loss was 88%.

We found that clinical symptoms comprised of pain in 50 and Sensory impairment in 8. Right thigh was involved in 30 and left thigh in 28 cases. Etiology was lateral femoral cutaneous nerve (LFCN) lesion in 36 and idiopathic in 22 cases. Haim et al,^[12] in their study a negative nerve block test ruled out the diagnosis of MP in 6/86 patients. Of 79 patients with MP, 21 responded to the initial nonoperative treatment and 48 patients responded to local corticosteroids. 3 of the remaining 10 patients underwent surgery (nerve transection 2, neurolysis 1). During an average of 3 (1–13) years of follow-up, symptoms consistent with MP did not recur in any of the 72 patients in whom symptoms had resolved after treatment.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that most commonly right thigh was involved and lateral femoral cutaneous nerve lesion was most common etiology.

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