Meralgia Paresthetica : Its Pathogenesis and Management

by

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INTRODUCTION

Meralgia paresthetica is a syndrome characterized by sensory dysfunction in the distribution of the lateral femoral cutaneous nerve^{1)~8)}. authors experienced 13 patients with this condition over the past 7 years and describe the clinical features, causes, and results of treating these cases. Their therapeutic strategy based upon analysis of these patients is also presented.

CASES

Our series consisted of 13 patients (Table 1). All of their complaints were numbness, pain, burning, itching and/or a grabbing sensation in the anterolateral thigh. All exhibited positive Tinel's sign at the lateral portion of the inguinal ligament. Age at onset ranged from 19 to 56, with a mean of 36. Three patients were male and 10 were female. The involved side breakdown was 2 cases right, 9 cases left, and 1 case bilateral. Conventional X-rays of the lumbar spine and pelvis offered no significant findings in all cases. Sensory nerve conduction velocity of the lateral femoral cutaneous nerve was measured in 10 cases, of which 7 had complete conduction block of the nerve. Regarding apparent predisposing and/or responsible causes, nerve compression was suspected in 7 cases, of which 6 cases were caused by tight underwear at the inguinal region and 1 case by retention of ascites in the abdomen. The remaining 6 cases were considered idiopathic. Duration of clinical symptoms and follow-up period ranged from 1 month to 8 years with a mean of 1.5 year (mean follow-up period : 3.9 years).

TREATMENT

Conservative treatments were tried in all cases. They included observation only, loosen underwear, instruction in proper posture, weight reduction, physical therapy, administration of drugs, and/or local injection of anesthetic. Surgery was performed cases with symptoms that persisted in spite of conservative treatments and where the patients desired earlier therapeutic effect.

RESULTS

The results were evaluated by following grading system : excellent, complete remission, good, significant improvement, fair, moderate improvement, poor, no improvement.

1. Results of conservative treatment

Conservative treatments were effective in 6 cases. Some residual symptoms persisted in the remaining cases.

2. Results of surgical treatment

Four out of 7 cases that unresponsive conservative management were treated surgically. The operative procedure consisted of extensive neurolysis and wapping the affected nerve with a local fat flap. Surgery revealed significant nerve compression by the surrounding anomalous structure in case 10 (Fig. 1

Fig. 1 Case 10

significant nerve compression by the anomalous fibrous tissue was recognized.

Fig. 2 Case 10

Extensive neurolysis in conjunction with wrapping the nerve using a local fat flap was performed in this manner.

Fig. 3 Case 13

The nerve was markedly compressed by the inguinal ligament.

and 2) and case 11, and by the thickened inguinal ligament in case 12 and 13 (Fig. 3). After the operation, good results were obtained in all cases with lasting freedom from preoperative symptoms.

DISCUSSION

Meralgia paresthetica, first described by Bernhardt¹⁾ in 1895, is characterized by pain, numbness and paresthesia in the distribution of the lateral femoral cutaneous nerve of the thigh. It may occur as a manifestation of polyneuritis or as a result of a clearly defined pathological condition.²⁾³⁾ However, recent experience with meralgia paresthetica finds entrapment or compression neuropathy as it passes beneath or through the inguinal ligament.²⁾³⁾⁵⁾⁶⁾⁷⁾ In 54% of our patients, nerve compression at this critical area, particularly by tight underwear in female patients, was suspected or confirmed to be the principle factor. Another clinical feature notable in our series was the predominant occurrence on the left side. We cannot, however, identify any predisposing condition at this point.

Regarding to the treatment, 46% of our patients responded well to the conservative measures. In addition, patients whose results was evaluated poor had had much longer clinical symptoms than those evaluated excellent, good or fair. Therefore, we speculated that longstanding clinical symptoms seemed to be the risk factor. For some patients who had failed to respond to conservative management, surgery was performed with favorable results. Prominent nerve compression was identified in all of the operated cases. Taking these results into account, the authors propose a therapeutic strategy for meralgia paresthetica that first attempts conservative treatment and anticipates good results if the patient's symptoms have been short-term (within 8 months). Surgical treatment should be considered if the patient's symptoms have persisted for a longer period.

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〈和文抄録〉

大腿外側皮神経障害：その病因と治療に関する検討

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著者らは、過去 7 年間に大腿外側皮神経障害 (meralgia paresthetica) の 13 例 (男性 3 例, 女性 10 例) を経験した。いずれの症例も Tinel 徴候や電気生理学的所見などから、鼠径靱帯部での絞性的神経障害と考えられた。我々の症例で特徴的なことは、発症原因として下着の締め過ぎによると思われた症例を 6 例にみたことであった。治療として、まず全例に保存的療法が試みられ、6 例に症状の改善が得られた。改善が得られた症例は、症例 12 を除きいずれも発症後 8 ヶ

月以内に来院した症例であった。保存的療法に抵抗した 7 例中 4 例に対して神経剥離術が施行され、いずれの症例も鼠径靱帯周囲部での種々の原因による神経の圧迫所見を確認し、術後症状の改善を得た。以上のことから、下着の締め過ぎを発症誘因の一つとして認識すべきであり、また罹病期間が短い症例には保存療法が有効であるが長期間の罹病期間を有する症例に対しては、手術的療法を考慮すべきと思われた。

Table 1 Cases

Case	Age (yrs)	Sex	Rt/Lt	Predisposing causes	Duration of symptoms	Treatments	Results
1	41	F	Lt	CTUW	2 ms	Off TUW	Excellent
2	39	F	Lt	CTUW	10 ms	Off TUW	Poor
3	22	F	Lt	Unknown	8 ms	Medication	Good
4	38	M	Lt	Unknown	1 yrs 6 ms	Injection	Poor
5	22	F	Lt	Unknown	2 ms	Wait & see	Excellent
6	56	F	Lt	Unknown	1 ms	Injection	Good
7	26	F	Lt	CTUW	2 ms	Off TUW	Good
8	41	F	Lt	CTUW	5 ms	Off TUW	Good
9	35	M	Rt	Unknown	8 yrs	Medication	Poor
10	19	F	Rt	Unknown	4 yrs	Neurolysis	Good
11	25	F	Lt	CTUW	1 yrs 3 ms	Neurolysis	Good
12	56	M	Lt	ROA	4 ms	Neurolysis	Good
13	29	F	Lt	CTUW	1 yrs 8 ms	Neurolysis	Good
			Rt	CTUW	2 yrs 8 ms	Neurolysis	Good

Legends. F : female. M : male. Rt : right. Lt : left. ms : months

yrs : years. CTUW : compression by tight underwear. ROA : retention of ascites