

MERALGIA PARÆSTHETICA AND THROMBOPHLEBITIS

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MERALGIA PARÆSTHETICA is well documented in world literature. Lee (1936) traced ninety publications on this subject following Bernhardt's original description forty-one years previously. Since 1936 there has been much further writing with the addition of new cases. The purpose of this paper is to draw attention to its association with deep thrombophlebitis of the lower limbs. This combination of diseases has not been emphasized previously, but is not uncommon, and is fully recognised here. The following two cases are presented as examples.

CASE REPORTS.

Case 1. Y. G., a widow, aged 60 years, was struck by a truck in January, 1960, receiving minor injuries to her right wrist and left ankle. Following her accident she had repeated attacks of aching in her left calf, aggravated by walking and relieved by rest. In late 1960 a small numb area developed on the lateral aspect of her left thigh. This caused her little discomfort until July, 1962, when the numb area was replaced by a larger area associated with a persistent burning pain. The pain was aggravated by the friction of overlying garments, and she had cut pieces out of these in an attempt to obtain relief. In September, 1962, her left foot, ankle, and calf became swollen for the first time, and this persisted until her admission to the Graduate Hospital on 19th November, 1962.

On examination the left lower limb was swollen with a Grade I œdema of the foot and leg. A selective tenderness over the deep veins was more acute in the calf and adductor areas. Lisker's sign was positive. Homan's sign was negative. Lasague's sign and Patrick's sign were negative. The knee and ankle reflexes were normal. An area of hyperæsthesia to stroking with a pin was outlined on the left lateral thigh. This corresponded to the sensory distribution of the anterior branch of the lateral femoral cutaneous nerve.

A diagnosis of recurrent deep thrombophlebitis, probably traumatic in origin, complicated by venous insufficiency and associated with meralgia paræsthetica was made.

Treatment consisted of strict bed-rest, leg elevation, and intravenous heparin, seventy-five milligrams, every eight hours. She was gradually made ambulatory from the eighteenth day following admission, her dosage of heparin being reduced three days later. On her discharge on the twenty-fourth day she was advised to wear an elastic support to knee level in the left limb, but no other special treatment. On leaving the hospital she still had a mild hyperæsthesia over the lateral thigh. When seen as an out-patient two months following discharge the hyperæsthesia was still persistent, but not troublesome or disabling, as previously.

Case 2. F. B. was a married woman aged 54 years. In June, 1960, while walking quickly to answer a telephone, she suddenly felt a tearing sensation in her left lower calf. This was followed by discoloration of the overlying skin and severe calf pain, the symptoms persisting for two weeks.

Since then, approximately at six-month intervals, an aching pain and a sensation of tightening recurred in the calf, the attacks lasting approximately two weeks. The pain was aggravated by standing or walking but relieved by rest. In late 1961 a persistent pain developed in the left upper lateral thigh. She consulted her internist, who treated her for arthritis presumably of the left hip joint.

On her admission to the Graduate Hospital in January, 1963, the lower limbs were equal in size. The peripheral pulses were present. The deep veins in the left calf and adductor areas were selectively tender, Lisker's and Homan's signs both being positive. Patrick's sign was positive; Lasague's sign negative. The knee and ankle reflexes were normal. An area of hypoesthesia to stroking the skin with a pin was detected in the left thigh. This was inside, and did not correspond exactly to the sensory distribution of the lateral femoral cutaneous nerve.

A diagnosis of recurrent deep thrombophlebitis of the left lower limb, probably traumatic in origin, associated with meralgia paræsthetica, was made.

The patient was treated with bed rest, leg elevation, and intravenous heparin, seventy-five milligrams every eight hours. She was gradually ambulated from the fifth day onwards, her heparin was discontinued on the seventh day, and discharged eleven days following admission. On leaving the hospital she was symptom-free. The patient has not been seen since discharge, but we have been told the lateral thigh pain has returned.

DISCUSSION.

Meralgia paræsthetica is a sensory mononeuritis of the anterior branch of the lateral femoral cutaneous nerve, the term meralgia being derived from the Greek words, *meros* (thigh) and *algos* (pain). The nerve arises from the second and third lumbar nerves. Crossing the iliacus muscle, it passes behind on the right the cæcum, and on the left the lower part of the descending colon. Leaving the pelvis below and medial to the anterior superior iliac spine, deep to the inguinal ligament, the nerve passes beneath, through or over the sartorius muscle, finally dividing into an anterior and posterior branch. The anterior branch enters a canal in the fascia lata in which it descends for a few inches before becoming superficial and distributed to the skin of the anterior and lateral thigh as far as the knee.

Ecker and Woltman (1938), in an analysis of one hundred and fifty cases from the Mayo Clinic, found meralgia paræsthetica to be chiefly a disease of middle age, occurring almost three times more frequently in men than in women. The disease is usually unilateral, commencing with a feeling of numbness in the lateral thigh. Later the numbness is replaced by a moderate or severe burning sensation. The aggravation of overlying clothing, complained of in Case 1, has been previously referred to by Osler (1918) and Lee (1936). The condition, once fully established, is usually chronic, persisting over a period of years (King, 1941). In long-standing cases hair may be absent over the area of skin supplied by the nerve (Lee, 1936; Mack, 1946). Hypoesthesia or hyperæsthesia to touch, pin prick, and temperature are found over the skin area. Corlette (1944) describes a tender

spot close to and medial to the anterior superior iliac spine. Patrick's sign may be positive (Case 2), suggesting arthritis of the hip joint, but generally these patients have no limitation of pure abduction as would occur in true hip joint disease (Monrad-Krohn, 1949).

Although mentioned occasionally as due to systemic causes such as alcohol, lead or in association with diabetes mellitus, practically all the literature concentrates on local causes. It may be associated with appendix abscess or cæcal tumour (Musser and Sailer, 1900). Stookey (1928) carried out anatomical dissections, describing the nerve as sharply angulated as it emerges from the pelvis, being in constant tension when the lower limb is semi-flexed and the tension increasing as the limb is extended. This suggestion of irritation of the nerve at its exit from the pelvis is supported by Mack (1946), who found the nerve to be thinned at this site. He also states that at operation, if the patient coughs or strains, the inguinal ligament has a shutter-like action on the nerve. Obesity may be an ætiological factor, the excess fatty tissue making greater demands on the inguinal ligament and fascia of the thigh (Ecker and Woltman, 1938). Many causes of direct irritation are referred to—scabbards, hernial trusses, sacro-iliac belts, abdominal binders, adhesive strapping, and tight-fitting girdles.

Only one previous publication mentioning an association with thrombophlebitis could be traced (Fischer and Kreig, 1932). There is no obvious explanation why the two diseases should co-exist. The thrombophlebitis of both patients reported here was probably traumatic in origin, but there was nothing to suggest direct trauma to the lateral femoral cutaneous nerve. Many thrombophlebitic patients present with muscular cramps of the lower limbs. The cramps are more common in the calves and feet, but occasionally involve thigh muscles. Intermittent spasms with tension of the fasciæ latæ might irritate the nerve, but muscular cramps were absent from the patients' histories. A persistent or recurrent thigh œdema could conceivably produce a fascial tension, but again was absent here. Abnormal posture is a possible cause. The ipsilateral association of meralgia paræsthetica with sciatica is thought to be often due to the tilt of the lower portion of the lumbar spine away from the affected side putting the cutaneous nerve in the stretch (Ecker, 1947). Both these patients had a long-standing recurrent thrombophlebitis and both mentioned the aggravation of their calf pain by standing or walking. The possibility exists that they may have produced postural change by repeatedly transferring their body weight on to their healthy limb. On physical examination there was no obvious skeletal deformity.

The relief, at least temporarily, of the meralgia paræsthetica associated with the treatment of the thrombophlebitis may be due to the period of strict bed-rest and leg elevation advocated here. It would be of interest to know if the same relief would be obtained in patients treated in hospitals where anticoagulation with rapid ambulation is the routine treatment for thrombophlebitis.

CONCLUSION.

Deep thrombophlebitis of the lower limbs and meralgia paræsthetica may be present simultaneously in the one patient. There is no obvious explanation for

this relationship. Muscular cramps, œdema, and malposture have been considered as ætiological factors. It is of practical importance to recognise the association as occasionally a patient with deep thrombophlebitis may present complaining primarily of the lateral thigh discomfort of meralgia paræsthetica.

SUMMARY.

Two case histories of patients with deep thrombophlebitis and meralgia paræsthetica have been presented to produce an increased awareness of this not uncommon association. Symptoms, signs, and suggested causative factors of meralgia paræsthetica have been briefly stated.

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