RESTLESS LEGS (EKBOM) SYNDROME

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and

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Though Thomas Willis was the first to describe the syndrome of restless legs in 1685, it was Ekbom (1944, 1945, 1946, 1950, 1960) who recalled the problem and elucidated in detail the character of the syndrome. Ekbom called the condition asthenia crurum paraesthesia (irritable legs), but today it is aptly better known as Ekbom's syndrome. As he defines it, the clinical features are distinct and easily recognized. Patients with the condition complain of discomfort in the legs and sometimes the thighs as well. The discomfort is described as having an aching, crawling, or restless quality. The hallmark is that it starts when the legs are immobile and it is alleviated when they are moved or when the patient walks. Symptoms are usually most marked when the patient is in bed at night.

Ekbom syndrome is a rare condition; the senior author (G.A.R.) has encountered only one other case previously. As far as we are aware, such a case has not been described in the local literature. We report below such a case.

REPORT OF A CASE

N.A.B., a 36 year old English-speaking Indian Muslim merchant, presented with a 15 year history of discomfort in the lower limbs. This discomfort is described as having an "unpleasant aching or pulling" quality. It comes on when he lies in bed and is most intense when he is about to fall asleep; occasionally it is felt on prolonged sitting with the legs stationary. It is felt not superficially but deep in the muscles. It usually starts in the calves or thighs and it often radiates down to the ankle joints and up to the inguinal ligament anteriorly and iliac crests posteriorly. Occasionally the discomfort is associated with a feeling of cold in the feet and weakness in the legs. Relief is only achieved by moving the legs continuously, as a result sleep is difficult and he often remains awake till the early hours of the morning. Occasionally there is relief when he lies on his belly. He is married and the wife finds the restlessness of his legs very disturbing. The discomfort never occurs when he is up and about. It is not felt in the upper limbs or trunk.

He drinks alcohol and smokes cigarettes occasionally. He is happily married and is a successful merchant. His symptoms are not aggravated by emotional upsets. There is no family history of such an illness.

Examination revealed a well built man. His height is 5 feet 6 inches and his weight is 106 lbs. His blood pressure is 130/80. The heart, lungs and abdomen are normal. All the peripheral pulses are felt and equal. The fundi are normal. Examination of the nervous system revealed nil of note; sensations are intact. The skin temperature of the feet and legs feels normal.

Investigations revealed a normal haemoglobin concentration, total white cell and differential counts. There was no glycosuria. The erythrocyte sedimentation rate was 8 mm/hour, and the blood Kahn test was negative.

At night when his symptom was most intense he was given an intravenous injection of 5 mg of Propanolol (a beta adrenergic blocker); there was no relief. On subsequent nights he was given intravenous injections of normal saline and 10 mg of phentolamine (an alpha adrenergic blocker). There was no change in his symptoms with normal saline but there was an appreciable improvement (lasting 10-20 minutes) following phentolamine injection. Next, he was given oral Propanolol 10 mg thrice daily for a week: there was no improvement. After this he was given oral Tolazoline hydrochloride (trade name: Priscol; an alpha adrenergic blocker) 25 mg thrice daily. After a week there was considerable improvement. He is still on oral Tolazoline and has maintained his improvement.

DISCUSSION

Although restless legs syndrome is a rare condition, its recognition is important not only to avoid unnecessary investigations but also because the symptoms are distressing and considerable relief can be obtained by the administration of tolazoline or other alpha adrenergic blockers.

The cause of restless legs remains in doubt. Prolonged exposure to cold (Ekbom, 1945), pregnancy (Ekbom, 1945), prostatitis (Winter, 1946), myokymia (Masland, 1947), iron deficiency (Norlander, 1954), barbiturate withdrawal (Critchley, 1955) and therapy with prochlorperazine (Ekbom, 1960) have all been reported in association with or proposed as causes of restless legs. It has been observed to occur transiently following an attack of dengue fever (Ransome, 1968). Callaghan (1966) described it in 5 patients with uraemic neuropathy. A hereditary factor was noted in some cases (Ekbom, 1945). Gorman et al (1965), in a series of 27 cases, found 13 to occur in anxious, tense or depressed patients. But Ekbom (1960) has stated flatly that the pathogenesis is unknown and the ailment is not psychogenic and that restless legs can occur as an independent disorder of many years duration in mentally healthy individuals.

The physiological mechanism by which restless legs is produced is unknown. Ask-Upmark (1954) suggested that the basic pathogenesis originates in the spinal cord. A disturbance at some site in the legs has also been blamed (Ekbom, 1945). More recently Ekbom (1960) has postulated that there is an accumulation of metabolites on the basis of relief of symptoms by movement, fever and alpha adrenergic blocking (vasodilatory) drugs and its aggravation by anaemia.

Of the many remedies suggested, alpha adrenergic blockers (vasodilators) have been found to be most useful (Ekbom, 1945, 1950, 1960). Our patient sometimes finds some relief by assuming the prone position, a finding that had also been observed by Ask-Upmark (1954). Because of this observation he has postulated that in some way congestion of the epidural veins produced the symptoms.

SUMMARY

A case of restless legs (Ekbom's) syndrome in a 36 year old Indian man is described and the literature is briefly reviewed.

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