THROMBOPHLEBITIS IN REITER'S SYNDROME*

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In a survey of 185 cases of Reiter's syndrome, Csonka (1958) reported thrombophlebitis of the deep veins of the leg in five cases. At that time this association was not further explored. The present paper gives details of the five cases mentioned as well as of a further five such patients seen recently.

Material

Thrombophlebitis of the deep veins of one or both legs was diagnosed in ten of 302 consecutive patients (293 males and 9 females) with Reiter's syndrome seen at St. Mary's Hospital and at the Central Middlesex Hospital. Their ages ranged from 15 to 73 years (mean 39). The main features of Reiter's syndrome in this series are shown in Table I.

The diagnosis of thrombophlebitis of the calf veins was based on the presence of pain in the involved limb, selective tenderness of the calf veins on pressure, and some induration of the calf muscle. Homan's sign, which is probably of less value than originally suggested, was positive in four of five patients tested; in the others it could not be used as the ankle joint was the seat of arthritis. When the popliteal veins were involved, there was also oedema of the limb with dilated superficial veins visible over the upper third of the tibia. Constitutional symptoms, such as moderate fever and tachycardia which occur in the more widespread cases of thrombophlebitis, were present in all but two patients, but could have been due to Reiter's syndrome alone, apart from any thrombophlebitis.

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TABLE I

MAJOR CLINICAL FEATURES OF REITER'S SYNDROME IN 302 CONSECUTIVE CASES

Lesions		No. of Patients	Percentage of Total
Genito-Urinary Infection	Non-gonococcal Urethritis (NGU) ..	132	100
	Gonorrhoea + NGU ..	105	
	Gonorrhoea ..	45	
	Others ..	20	
Joint Lesions	Polyarthritis ..	261	97
	Monoarthritis ..	21	
	Arthralgia ..	11	
Plantar Fasciitis		60	20
Tendon Involvement		45	14.9
Eye Lesions	Conjunctivitis ..	95	31.4
	Iritis ..	23	7.6
Balanitis		68	22.5
Keratoderma Blennorrhagica		39	12.9
Stomatitis		36	11.9
Visceral Lesions	Aortic incompetence	4	1.6
	Central nervous system lesion ..	1	
Thrombophlebitis of the Deep Veins of the Leg		10	3.3

Clinical data of the ten patients with thrombophlebitis, all of whom were males, are summarized in Table II. The average age at onset was higher in the group with thrombophlebitis than in the rest (36 years against 30

TABLE II

CLINICAL DATA OF TEN PATIENTS WITH REITER'S SYNDROME AND THROMBOPHLEBITIS

Patient No.	Age (yrs)	Previous Attacks of Reiter's Syndrome	Main Features of Present Attack							Onset of Thrombophlebitis following Onset of Arthritis (days)
			Non-gonococcal Urethritis	Polyarthritis	Conjunctivitis	Iritis	Balanitis	Stomatitis	Keratoderma Blennorrhagica	
1	47	None	+	+	+	-	-	+	-	3
2	27	2	+	+	+	-	+	-	+	Simultaneous
3	26	None	+	+	-	-	-	-	-	7
4	26	2	+	+	+	-	-	+	-	7
5	47	None	-	+	+	-	+	+	-	14
6	43	1	+	+	-	+	+	+	-	9
7	63	None	+	+	-	-	+	-	-	2
8	37	None	+	+	+	-	+	-	-	3
9	24	None	+	+	+	-	+	-	-	2
10	22	None	+	+	+	-	+	-	-	2

years) but this difference became negligible if one compared the age at onset of the *first* attack in each group. The incidence of conjunctivitis, stomatitis, and balanitis was higher in the group with thrombophlebitis, which may be an expression of the syndrome being more extensive than in our average case; on the other hand, none of the ten patients was considered to belong to the group of the most severely affected cases, of which there were almost forty in the whole series. As the patients with thrombophlebitis constitute only 3.3 per cent. of the total, the differences noted in the clinical aspects of Reiter's syndrome may well be fortuitous.

The distribution of concomitant joint lesions adjacent to the area of thrombophlebitis is shown in Table III. It appears that, in every case, the knee-joint was involved on the side of thrombophlebitis, but in only half the cases on the opposite side as well. Moreover, when both knee joints were affected, the one on the side with clinical thrombophlebitis was more severely involved than its fellow. There were no such differences in the incidence or severity of ankle-joint involvement in relation to the site of thrombophlebitis. A survey of arthritis of the knee in the rest of the series showed it to be evenly distributed between the two sides.

TABLE III

INCIDENCE OF CONCOMITANT ARTHRITIS ADJACENT TO THROMBOPHLEBITIS IN TEN PATIENTS

Patient No.	Site of Thrombophlebitis	Arthritis			
		Knee		Ankle	
		Right	Left	Right	Left
1	Right calf	+		+	+
2	Left calf	+	+	+	+
3	Right and left calf	+	+	+	+
4	Right calf	+		+	
5	Left calf	+	+		±
6	Right calf	+	+		
7	Right calf	+			±
8	Right calf and popliteal	+			
9	Right calf and popliteal	+	±		
10	Left calf		+		

Treatment and Progress

In seven patients with thrombophlebitis, the foot of the bed was raised and an elastic bandage applied to the affected limb from the ankle to above the knee; at the same time, the patient was made to exercise the limb by tensing and relaxing the muscles. Phenylbutazone (300 mg. daily) was given for its anti-inflammatory action on the joints and veins. As soon as the acute pain subsided, the patient was allowed active leg exercises and encouraged to walk when the state of the joints permitted it. In three patients, anti-coagulant therapy (heparin followed by oral anticoagulant drugs) was administered for 2 weeks. Signs of active thrombophlebitis disappeared in all patients within 2 to 3 weeks of onset and there were no complications or sequelae arising from it. By the time the symptoms and signs of thrombophlebitis had disappeared, the adjacent arthritis of the knee was improving, though it usually took several more weeks for full recovery to be attained.

Discussion

Although the incidence of thrombophlebitis in this series of cases of Reiter's syndrome is not high, the circumstances in which it occurred suggest that it is not a chance association. The classical picture of thrombophlebitis developed within a short period of the onset of arthritis (mean 5.6 days) at a time when some patients were still ambulant and had received no drug treatment. Furthermore, most of the patients were relatively young, previously healthy, and without known predisposing causes of thrombophlebitis. The finding that thrombophlebitis occurred in the proximity of the most marked arthritis might suggest that the inflammatory process responsible for the arthritis spread and involved the veins. If this anatomical association is usual, it is quite possible that thrombophlebitis adjacent to severe arthritis has been overlooked in the past by us and others, and that its incidence as observed in this series is too low.

The merits of anticoagulant treatment cannot be assessed in this small group, especially as the patients made a uniformly good recovery, whatever treatment was given.

As the incidence of thrombophlebitis in Reiter's syndrome is low and recovery from it seems uneventful, it is not proposed to introduce drastic prophylactic measures except to fit supporting elastic stockings in patients with marked arthritis of the knee. Avoidance of immobilization of affected limbs and early ambulation has always been part of the routine management of our patients and will be more strictly enforced.

At this stage, we have been able only to record the incidence of thrombophlebitis; its significance and exact relationship to Reiter's syndrome has yet to be investigated.

Summary

In a series of 302 consecutive patients with Reiter's syndrome, ten patients developed thrombophlebitis of the deep leg veins a few days after the onset of arthritis. The phlebitis appeared to be associated with active arthritis of the adjacent knee joint. Recovery of the thrombophlebitis was quick and uncomplicated.

The circumstances in which thrombophlebitis occurred in these patients suggest that it formed part of Reiter's syndrome and was not a chance association.

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REFERENCE

Csonka, G. W. (1958). *Brit. med. J.*, 1, 1088.

Thrombo-phlébite et le syndrome de Reiter

RÉSUMÉ

Parmi une série de 302 patients consécutifs souffrant du syndrome de Reiter dix malades ont développé une thrombo-phlébite des veines internes de la jambe quelques jours après le début de l'arthrite. La phlébite

semblait associée avec l'arthrite aigu du genou contigu. La guérison de la thrombo-phlébite avait été rapide et sans complications.

Les circonstances dans lesquelles la thrombo-phlébite a paru chez ces malades suggèrent qu'elle forme partie du syndrome de Reiter et qu'elle n'avait pas été une association fortuite.