OCCURRENCE OF THE WOLFF-PARKINSON-WHITE SYNDROME CONCOMITANT WITH ACUTE RHEUMATIC FEVER*

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Early descriptions of the Wolff-Parkinson-White syndrome emphasized its occurrence in the absence of demonstrable cardiac abnormalities.[8, 7, 11] Bishop remarked that the syndrome appeared occasionally in patients with hypertensive heart disease, acute glomerulonephritis, or inactive rheumatic heart disease, but felt that these factors were coincidental rather than caustive.[2] However, a review of the literature and description of cases by Hunter et al., in 1940, indicated that cardiac abnormalities were not uncommon in this syndrome. They described its occurrence in the presence of old rheumatic and luetic valvular lesions, hypertension, myocardial infarction, and thyrotoxic heart disease; these conditions were present in 18 of the 90 cases reviewed in the literature, and in 3 of the 19 new cases reported by them.[6] Clagett reported a case in which the attacks of paroxysmal tachycardia were apparently precipitated by allergic reactions.[4] Littman and Tarnower reported nine cases, in one of which hypertensive heart disease was suspected; it was the feeling of these authors that the syndrome might be occasioned by cardiac disease, and be transitory in nature in such instances.[8] Graupera and Govea reported a case associated with the anginal syndrome.[5] Willius and Corryer, in 1946, reviewed 56 cases from their personal experience, and found that 19 of them had associated cardiovascular defects; 5 with healed rheumatic valvular disease; 4 with coronary artery disease and the anginal syndrome; 9 with hypertensive heart disease; and one with thyrotoxic heart disease and decompensation.[10]

The appearance of this syndrome in association with acute rheumatic fever has not been noted in this country. In England, Hunter et al. reported two instances which occurred in conjunction with acute rheumatic fever: these authors noted that associated heart disease makes attacks of paroxysmal tachycardia less likely.[6] Bain and Hamilton recorded a typical tracing in a rheumatic child.[1] Mahaim reported two

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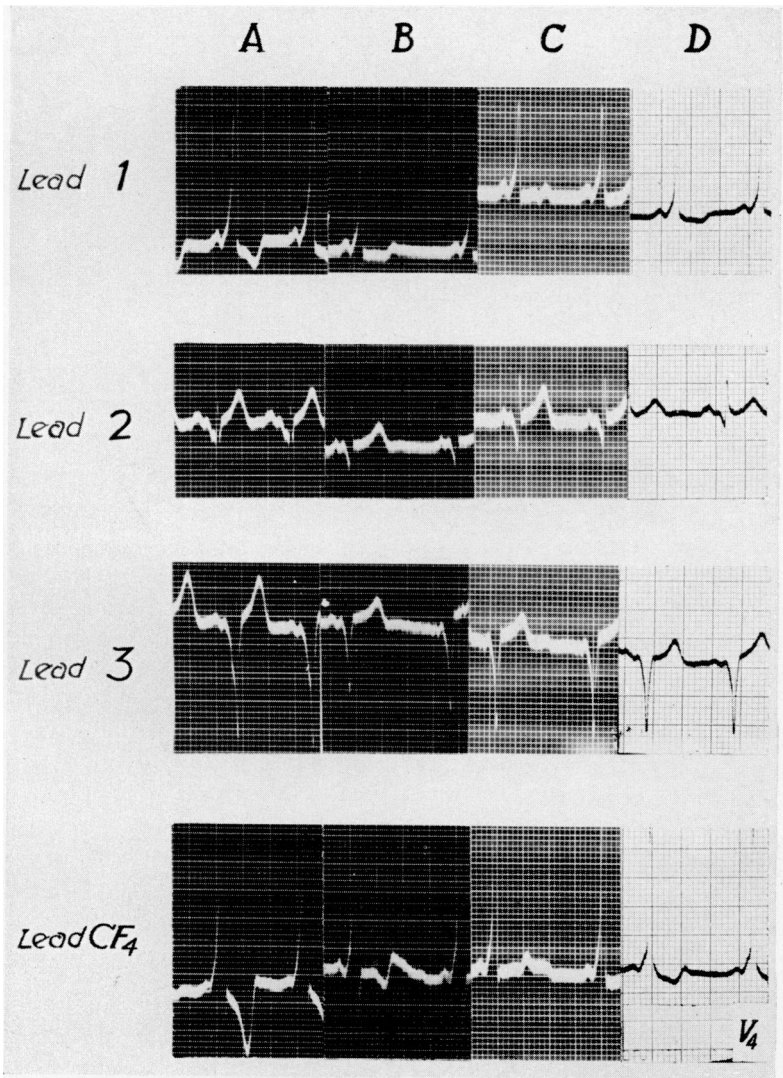
cases; one in a female who noted the onset of attacks of tachycardia during an initial attack of rheumatic fever at age 12; the paroxysms grew worse, and led, at the age of 31, to an electrocardiographic diagnosis of the Wolff-Parkinson-White syndrome.[9] Mahaim's second case occurred in a 28-year-old male, who suffered three rapidly successive attacks of "articular rheumatism," and was found to have the classic electrocardiographic pattern; this was maintained for at least three months after convalescence.

Because of its apparent rarity in this country, the following case of the Wolff-Parkinson-White syndrome, first noted during an acute attack of rheumatic fever, is reported.

Case report

The patient, a 10-year-old white, American-born male, was admitted to the Albany Hospital on 1 June 1944. Two months prior to admission, following a sore throat, he became anorexic, developed a temperature of 104° F., and was found to have a systolic murmur at both mitral and aortic areas. An electrocardiogram taken at that time (Fig. 1, A), revealed a PR interval of .10 and a QS interval of .12, with inverted T 1 and T 3, and low take-off of ST 1 and ST 3. A diagnosis of active rheumatic myocarditis and valvulitis was made, and the patient was put to bed for six weeks. His past history revealed only questionable evidence of "growing pains" at age 5, and one episode of scarlatina. The day before hospital admission, he again developed an elevated temperature, complained of generalized abdominal pains, and his left great toe became swollen, red, and tender. Physical examination at that time revealed a blowing murmur best heard in the mitral area but also transmitted to the aortic area. His electrocardiogram (Fig. 1, B) revealed the same short PR interval and the long QS interval as before, with some improvement in T 1 and T 3, and with a biphasic T 4. He obtained symptomatic relief on salicylates, but was still maintaining an elevated temperature at the time of discharge six weeks later.

He was followed frequently at the out-patient department, with no recurrence of symptoms; the systolic murmurs at the mitral and aortic areas persisted unchanged. On 28 December 1944, approximately nine months after his initial electrocardiogram, a repeat tracing (Fig. 1, C) revealed improvement in the T waves, with maintainance of the original PR, QS interval abnormalities.


A
B
C
D
Lead 1
Lead 2
Lead 3
Lead CF_4
V_4

He was last seen in March 1948, at which time he had no symptoms referable to his cardiovascular system, demonstrated a harsh mitral systolic murmur, and still showed electrocardiographic evidence of the Wolff-Parkinson-White syndrome (Fig. 1, D). At no time, had he had subjective or objective evidence of paroxysmal tachycardia.

Summary

A case of the Wolff-Parkinson-White syndrome, occurring concomitantly with an attack of acute rheumatic fever, and maintained for four years thereafter, is presented.

References

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