Is Peyronie's disease iatrogenic?

JOHN H. OWEN, MB, FRCGP, COLIN A. WILLIAMS, MB, ALUN D. REES, MB

SUMMARY. Three cases of Peyronie's disease are described, in which the condition is associated with hypertension and atherosclerosis. Another common factor is the use of beta-blocking agents in their treatment. A plea is made for an urgent review of the aetiology of Peyronie's disease bearing in mind the possibility of an iatrogenic cause.

Introduction

IN 1743 François de la Peyronie published an article describing three patients who had pain and associated curvature of the erect penis, caused by fibrous thickening in the shaft. The French periodical *Les Ephémérides des Animaux de la Nature* is said to have mentioned the condition in the previous century (Odiase and Whitaker, 1980).

In its early stages the disease is characterized by aggregates of lymphocytes and plasma cells around the vessels in the connective tissue between the tunica albuginea and corpora cavernosa, suggesting an autoimmune aetiology. Among conditions with which Peyronie's disease is associated are Dupuytren's contracture, urethritis, osteoarthritis and trauma (Osborne, 1977). Treatment may be expectant, although success has been claimed with the administration of potassium p-aminobenzoate (Potaba) (Zarafonetis and Horrax, 1959). Surgical procedures are advocated in the more severe cases.

Association with drugs has been noted previously (Wallis *et al.*, 1977; Yudkin, 1977; Pryor and Khan, 1979). In this report we describe established Peyronie's disease occurring in three middle-aged men, all suffering from hypertensive disease with or without myocardial ischaemia, and all treated with beta-blockers and other drugs. Two of the patients suffered from hyperlipoproteinaemia (Fredrickson's Type 2 B).

John H. Owen, General Practitioner, Porthcawl; Colin A. Williams, General Practitioner, Porthcawl; Alun D. Rees, General Practitioner Trainee, Porthcawl.

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Case 1

A company director aged 53, known to be hypertensive since 1977, with myocardial ischaemia and severe Frederickson Type 2 B hyperlipoproteinaemia was treated with a combination of low fat diet and clofibrate. His hypertension and myocardial ischaemia were controlled initially with propranolol 40 mg twice a day. During March 1980, his angina became uncontrolled; propranolol was stopped and he was treated with metoprolol 100 mg twice a day and nifedipine 10 mg tds. Three months later he started complaining of painful erections and within weeks he developed fully established Peyronie's disease.

Case 2

A 47-year-old sales director suffering from essential hypertension, diagnosed when he was 38, was, after investigation, treated with oxprenolol 40 mg twice a day combined with amiloride hydrochloride 5 mg and hydrochlorothiazide 50 mg (Moduretic) daily.

His treatment was later changed to sustained-release oxprenolol 160 mg (Slow Trasicor), and Moduretic was continued. Three years later he developed Peyronie's disease which is currently being treated with potassium p-aminobenzoate 12 g daily in divided doses.

Case 3

A 47-year-old engineer suffered from myocardial infarction four years ago and was found to have hypertension and hyperlipoproteinaemia (Frederickson Type 2B). He was treated with a low fat diet and oxprenolol 40 mg twice a day. After a few months he developed fibrous plaques in the shaft of the penis and this developed into established Peyronie's disease. In his past history, he developed chronic balanitis in 1970 which responded slowly to topical steroids, and in 1974 he suffered from reactive depression which was treated successfully with a short course of dothiepin hydrochloride 25 mg at night.

Discussion

The three cases described were all treated with beta-blockers and there is a temptation to propound at least a

direct connection between these drugs and Peyronie's disease. However, there is another common factor—hypertension with varying degrees of atherosclerosis. A causal relationship between this condition and Peyronie's disease has been suggested, in which case any connection with adrenergic blocking agents may be fortuitous (Pryor and Khan, 1979).

We have reported our experience to the Committee on Safety of Medicines in the usual way and we feel that further study into the aetiology of this potentially serious condition is urgently required.

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Address for reprints

Dr J. H. Owen, Gwlad-y-Môr, 47 South Road, Porthcawl, Mid Glamorgan CR36 3DG.

Long-term digitalis therapy improves left ventricular function in heart failure

To clarify the controversy regarding the benefits of long-term oral digoxin in the treatment of heart failure, we evaluated haemodynamics at rest and during exercise in nine patients in sinus rhythm with symptomatic heart failure. Patients were studied during long-term digoxin therapy, after withdrawal of the drug and six hours after readministration. Upon withdrawal of digoxin, pulmonary capillary-wedge pressure increased, suggesting a deterioration in left ventricular function. In addition, heart rate tended to increase and stroke-work index, stroke-volume index and radioiangiographic ejection fraction decreased. Acute readministration restored the haemodynamic values to those observed during long-term digoxin therapy. The improvement in haemodynamics during long-term digoxin administration was also observed during exercise.

This improvement demonstrated the value of long-term oral digoxin therapy in congestive heart failure.

Source: Arnold, S. B., Byrd, R. C. *et al.* (1980). *New England Journal of Medicine,* **303,** 1443-1448.