the genes responsible for the immune response.[2]

Conclusion

We have identified the first-reported case of twins with Peyronie's disease. The presence of the disorder in other family members as well as HLA B7 cross-reacting antigens in some of the members may be more than coincidental. Although the clinical impact is not totally clear, there would seem to be some relevance to male offspring and siblings of affected men.

That an HLA haplotype was shared among three known affected kin and possibly a fourth suggests a possible genetic component. Previous studies suggest that certain forms of Peyronie's disease have a genetic component and are associated with the B7 cross-reacting group. There may be a need for certain environmental factors to instigate the inflammatory response. If this is so, identifying such an agent might enable specific therapeutic manipulation. Whether this theory could be extended to other fibrosing disorders of greater clinical importance[8] (i.e., retroperitoneal fibrosis) is yet to be determined, but it could help us understand these problems.

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Commentaries

Drogo K. Montague, M.D., Department of Urology, The Cleveland Clinic Foundation, comments: Peyronie's disease occurs in middle-aged men, usually without warning, and causes anxiety as they observe curvature and foreshortening of their erections. If the resulting erectile deformity is severe, coitus may be impossible. Little is known about the cause of this disorder. This report, the first of Peyronie's disease in identical twins, suggests an association between HLA B7 cross-reactive group and Peyronie's disease as well as a possible genetic component for this disorder.

Allen H. Mackenzie, M.D., Department of Rheumatic and Immunologic Disease, The Cleveland Clinic Foundation, comments: The development of fibrosis is poorly understood. Fibrosis is one common response to tissue disruption through wounding and is a common mode of healing from diverse inflammatory processes. Tissue culture studies of fibroblasts have begun to delineate some of the many influences that govern proliferation and secretion. There is already a long and growing list of stimulators to proliferation and to secretion of collagen, but it is not yet clear which ones dominate the process.

The possibility that Peyronie's disease may be a manifestation of a more generalized fibrosing diathesis has long been of interest, though infrequently reported. Peyronie's camptophallus may be associated with Dupuytren's contracture and with strange knuckle pads, or thickenings of skin, over the proximal interphalangeal and metacarpophalangeal knuckles. Furthermore, these features may be associated with nodular plantar fasciitis. Such patients provide an intriguing and tantalizing glimpse of fibrosis in action. The patients reported on here, however, appear to have none of these other findings. There is probably a weak association between these diverse fibrotic problems and a generalized alteration in the biology of tissue, which may be under some HLA B7 control, an association that will require confirmation.