Sir,

Chloroquine (CHQ) remains the most available and in many cases affordable antimalaria drug of choice in the third world for a variety of ailments including its anti-inflammatory properties in rheumatoid arthritis (RA). Hydroxychloroquine (HCHQ) is preferred, however, due to its less dramatic side effects.

Africa shows variations in rheumatic disease amongst countries. In Zimbabwe the middle-aged and elderly with osteoarthritis and young women with depression constitute vulnerable groups with older women bearing the double burden of their own degenerative conditions and the results of the HIV/AIDS pandemic (Jelsma et al., 2002). In southern Africa, most rheumatoid arthritis patients carry the HLA DR4 antigen, despite the overall incidence of RA in rural Africa being low (Mijiyawa, 1995).

Immunogenetic factors may reduce the prevalence of some conditions such as the spondyloarthropathies. Although the association between HLA-DR4 and RA holds true in Africans, the same is not so for the association of HLA-B27 with ankylosing spondylitis (AS) (Adebajo & Davis, 1994). The prevalence of HLA-B27 in black African 10 times less than Caucasian populations, in part accounting for the low prevalence of spondyloarthropathies, although its association with AS is low (Adebajo & Davis, 1994).

HCHQ has been shown to be an effective drug in the management of RA (Adams et al., 1983) by reducing synovitis, pain and physical disability, although psychological functionality was adversely affected (Anonymous, 1995). It is unusual though that, following an extensive PubMed search, no articles were available on the use of HCHQ in the treatment of specifically African RA. The use of CHQ is associated with undesirable side effects including retinal toxicity (Rivett, 2004) and HCHQ having less adverse side effects than say acitretin which is used in discoid lupus erythematosus (Jessop et al., 2001). HCHQ therapy does have some side-effects including skin rashes. Corneal deposits and retinal damage (very rare before six years’ therapy), necessitating the need for visual field tests at six months and fundoscopy if abnormal (Shipley et al., 2005). HCHQ is used alone in mild disease or as an adjunct to other disease-modifying anti-rheumatic drugs usually at 200-400 mg/day reduced to 5 days/week (Shipley et al., 2005). Although retinopathy is rare before six years of therapy, skin rashes and corneal deposits may occur.

One cannot dismiss CHQ, a prophylactic drug, entirely as having adverse effects on one’s health (Cooper & Magwere, 2007), although there is evidence of resurgence of CHQ-resistant Plasmodium falciparum (Sutherland et al., 2007). CHQ is probably more readily available in rural stores. There has been mention of other drugs like D-penicillamine which is administered before food and for at least three months before improvement, although the drug must be stopped if proteinuria exceeds 2 g/24 hr (Shipley et al., 2005). Azathioprine administered maximally at 2.5 mg/kg and cyclophosphamide 1-2 mg/kg may be prescribed when other disease-modifying anti-rheumatic drugs are ineffective. They are useful for patients who have developed severe side-effects following treatment with corticosteroids (Shipley et al., 2005). If the side effects are overwhelming then the physician may embark on the use of non-steroidal anti-inflammatory drugs (NSAIDs) and analgesics to control the symptoms of RA; induce remission with i.m. depots of methylprednisolone (80-120 mg) if synovitis persists beyond six weeks; and, if synovitis recurs, to begin sulfasalazine or methotrexate treatment (Shipley et al., 2005). The literature is inundated with advice for treatment of RA via medication, physical measures and surgery. In areas of Africa where many of the medication-based prescriptions are unavailable, whether by economy or affordability, traditional
remedies for coping with the adverse effects of RA in addition to long-term CHQ/HCHQ usage are imperative.

Patients using CHQ/HCHQ should ensure that their daily vitamin intake is increased via consumption of considerably more fruit and fresh green leaves/vegetables. Biotin intake has been shown to improve skin rashes (Kimura et al., 2003) due to its role as a coenzyme in carboxylation reactions in gluconeogenesis and fatty acid synthesis. Additionally, fish oils, rich in n-3 polyunsaturated fatty acids, increase the content of eicosapentaenoic-eicosanoids and decrease arachidonic acid in immune and endothelial cells leading to a lower inflammatory activity (Mesa García et al., 2006). Likewise, oleic acid exhibits anti-inflammatory effects by preventing the release of particular chemotactic molecules (Mesa García et al., 2006). Associated with this is an improved fluid and electrolyte intake, and exercise regimen. Some patients swear by baths of coarse salt and hydrotherapy as alleviating swelling and joint stiffness. Iatromechanistic conceptions of music throughout the ages have been considered a useful determinant in the fight against pain and as a remedy in rehabilitative and palliative therapy (Evers, 1990). Perhaps the traditional remedies for pain and swelling alleviation need further investigation, given that established drug regimes are often associated with unwanted side effects. Indeed, the secondary tubers of the traditional African herb, devil’s claw (Harpagophytum procumbens) have been shown clinically to reduce pain sensation and improve mobility within a few weeks of treatment (Wegener et al., 2000). Such options may reduce the dependence on CHQ/HCHQ treatment.

References


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