

Alert on Long-term Lumbago and Skelalgia Not Responsive to Anti-Rheumatic Pharmacotherapy

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In our work we have often dealt with patients who were diagnosed with “rheumatic or rheumatoid arthritis” in rural basic medical units or certain hospitals. A minority of those patients did have rheumatoid arthritis, but most of them did not improve with anti-rheumatic pharmacotherapy for multiple years; instead, their conditions worsened increasingly. Some of them had a bent waist and hunched back such that they could not manage their own life, and some patients had even progressed to paralysis. Those patients were ultimately given a definite diagnosis of endemic fluorosis based on our careful examination. If those patients could be diagnosed correctly at the early stage, and treated by medications such as cistanche pills, serpentine, fluorine-dissipating pills, vitamin C, vitamin D, and calcium tablets for enhancing body metabolic functions and the excretion of fluorine, activating meridians to suppress pain, reinforcing kidneys and supporting bones, or by implementing measures for reducing or dissipating fluorine, their unnecessary economic loss and their physical and mental misery may be avoided.

Patients with endemic fluorosis are easily misdiagnosed with rheumatic arthritis, rheumatoid arthritis, and osteomalacia, etc. which have high morbidity, because they have the common primary symptom of long-term lumbago and skelalgia. However, they differ in the nature and site of pains and in the signs, disease onset and test results etc., and the differentiation of those diseases should be made based on the following points to avoid misdiagnosis:

I. Pay due attention to epidemiological characteristics: Endemic fluorosis is a chronic endemic disease, and patients are long-term residents of high-fluorine regions (the content of fluorine in drinking water exceeds 1.0 mg/L), or are migrants from other areas. Patients born in such regions all have mottled teeth; patients who migrated to

such regions after they grew permanent teeth may be free of mottled teeth, but they would be susceptible to endemic fluorosis.

II. Tests should be comprehensive: In case of endemic fluorosis, erythrocyte sedimentation is normal, while the level of fluorine in blood and urine is elevated (normal level of fluorine in blood is 0.015–0.1 mg/L, and that in urine should be below 4.0 mg/L). X-ray films may reveal the special calcification of interosseous membranes in the forearms and calves as well as muscular tendons and ligaments, in addition to hyperostosis, osteosclerosis or osteoporosis. Clinical physicians should pay due attention to the X-ray signs, and the results of examinations such as anti-staphylococcus “O” and rheumatoid factors.

III. Identify specific symptoms of endemic fluorosis: In endemic fluorosis, the disease onset is slow, and it assumes a chronic and progressive course; patients have mottled teeth, broken teeth or tooth loss, etc. They may experience unbearable and intense systemic or local persistent and immobile osteodynia that is not affected by climate, and is worsened by having rest and remitted by doing physical activity. Their joints are not swollen, but joint motor function is limited and paresthesia may be present. Severe cases would have bent waist or hunched back, or have rigid waist or back, deformed extremities or muscular atrophy, or even a bent and paralyzed torso such that patients become disabled, and visceral functions would decline due to compression and consequential deformity. In females, pelvic deformity would cause dystocia, and their disease would worsen remarkably after giving birth.

Endemic fluorosis does not respond to anti-rheumatic pharmacotherapy, hence patients with long-term lumbago and skelalgia that do not respond to long-term treatment and who have the aforesaid epidemiological and clinical characteristics should be suspected of having endemic fluorosis.