system, connected with absence of compensatory growth of activity neutrophils SOD and AFS plasma at increase of oximetabolism in neutrophils, observable at other forms arthrosis. Infringment of AFS plasma and decrease microbicidal activity neutrophils at ill female with knotes arthrosis complicated sinovitis is supposed to be connected to violation in regulation lymphocytes and granulocytes. At the study of morphological structure of blood ill arthrosis increase of relative quantity lymphocytes and decrease neutrophils was found out at the knotes arthrosis at ill female, that is an attribute of painful process.

The given infringment of morphological structure of blood at ill female with knotes arthrosis complicated sinovitis correlates with growth redox activity, that is possibly connected to induction aggregation neutrophils under influence of immune complexes. Violation oximetabolism neutrophils at ill female with knotes arthrosis complicated sinovitis is the most expressed in the age of 41–50 years old is probably connected with infringment of gonad system at the women in period, previous menopause and corresponds to data of the literature on high activity arthrosis in this age. The changes occurring on influence laserotherapy are connected to amplification of activity AFS plasma, that occurs at photochemical reactivate by radiation laser ferum and copper contain ferments, at insignificant influence on oximetabolism neutrophils.

Results The greatest positive dynamics redox regulation of neutrophils and activity antioxidizing ferment systems at ill arthrosis occurred at acupuncture treatment, as monotherapy, also in combination with diclofenac. Given changes were combined with normalisation of morphological structure of blood. Thus the perioral acupuncture effect is connected not only with the releasing of pain but also with immunomodulation mechanism normalising the neutrophils activity.

Conclusion

AB0147 DRUG TREATMENT OF OSTEOARTHRITIS: ASPECTS OF SYMPTOM AND STRUCTURE MODIFICATION

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Background "Osteoarthritis (OA) is a degenerative disease of the joint cartilage. It is of diverse aetiology and obscure pathogenesis. Clinically, OA is characterised by joint pain, tenderness, movement limitation, occasional effusion, and variable degrees of local inflammation, but without systemic effects. Therapeutically, OA is characterised by a lack of specific healing".¹ Therefore, treatment of OA is mainly a symptomatic one, a specific treatment, with a demonstrable causal effect on the pathological process, is still on the way to be proven clinically.

Objectives Historically, OA has been viewed as a disease for which little can be done to block its progression. However, the significant increase in understanding the underlying pathologic processes has substantially increased the number of potential targets for drug intervention (Howell *et al.* 1995). In order to clearly define OA therapies, recently it was agreed to classify OA drugs as follows:

- Symptom modifying drugs (with no detectable effect on the structural changes of the disease).
- Structure modifying drugs (which interfere with the progression of OA).

Methods Based on published placebo as well as reference controlled clinical studies, evidence is assessed for the classification of drugs used in the treatment of osteoarthritis.

Results Besides corticosteroids, classical NSAIDs, and analgesics, symptom modifying OA pharmacotherapy includes Ademetionine, ASU, Chondroitin sulfate (CS), Diacerein, Glucosamine sulfate (GS, dona 200-S), Hyaluronic acid (HA), and Oxaceprol. All show an anti-inflammatory effect, but unlike classical NSAIDs most of them do not inhibit lip- or cyclo-oxygenase. Therefore, they have been described as nonclassical NSAIDs.²

On the other hand, experience based on *in vitro* studies and animal models shows that some drugs used in the treatment of OA, rather than having a beneficial symptomatic effect, may accelerate or exacerbate the pathological changes of OA (Brandt *et al.* 1998). This potential drug induced cartilage change for the worse has stimulated interest in pharmacologic agents which may positively influence the pathogenetic mechanisms in OA. In case these agents would be disease modifying (Lequesne *et al.* 1994) or structure modifying drugs (Dougados *et al.* 1996). Many substances have already been tested experimentally. However, a specific OA treatment has very rarely been confirmed so far in hypothesis testing clinical studies.

Concerning potential structure modification of CS and HA, there are only a few pilot clinical studies. Concerning GS, it was proven recently that during long-term treatment the drug exerts combined structure-modifying and symptom-modifying effects so that it is to suggest that GS could be a disease modifying agent in osteoarthritis (Reginster *et al.* 2001).

Conclusion A future challenge will be the design and implementation of further appropriate clinical trials (Dieppe 1994), with longer follow-up and with different designs, to assess whether disease modification leads to reduced need of joint surgery and prolonged time to substantial disability, respectively (Reginster *et al.* 1996).

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AB0148 CHIROPRACTIC MANAGEMENT OF SHOULDER CAPSULITIS AND KNEE OSTEOARTHRITIS

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Background The treatment of osteoarthritis (OA) of the knees and adhesive capsulitis of the shoulders (SAC) is often disappointing. Recent EULAR clinical guidelines emphasise the role of non-pharmacological treatment modalities for knee OA.¹ Since 1990 some reports confirmed the benefit of chiropractic management for low back pain.^{2,3} The theory of the vertebralne laid by Gutzeit (1951) related vertebrogenic nerve involvement with target tissue pathology. Chiropractic method of Kasyan was devised and originally modified for the treatment of spine, shoulders and degenerative disease of the knees.^{4,5}

Objectives To assess the results of modified Kasyan chiropractic treatment for osteoarthritis of the knee and for adhesive capsulitis of the shoulder.