RECOVERY KINETIC OF PATIENTS WITH RHEUMATOID ARTHRITIS.(RA)

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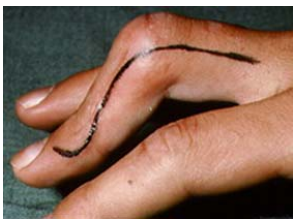
Key words: anchilozing, polyarthritis,kinesitherapy,deviation,splints(orteze)

Abstract

Clinical picture of the hand is complex rheumatoid impaired at multiple osteo-articular, muscle, tendons, ligaments. Lesions at the punch: tenosinovita extensorilor, sinovita radio-carpal, sidrom head cubits, sidrom carpal canal, redoarea punches, especially in the flex, mainly under the action of flexorilor initially subluxație web subsequently associated with radial deviation of pumnului.Leziuni at the fingers: a finger deviatța cubits. fingers "thrown in the pen, fingers in buttonhole, policele" in Z "tenosinovitele hand. clinico assessment - functional recovery oriented program, outlines the methodology appropriate to each case, the clinical obiectiveaza obtained by certain procedures, focused on prognosticului.(1)Treatamentof the hand reumatoide. Objectives: preserving functional capacity of the rheumatoid hand, primarily from an articular musculoskeletal, functional capacity preserving outstanding (for each stage of the disease), adjusting activities according to current restantul functional real functional autonomy by maintaining maximum operating capacity remaining real(1). Kinetoterapie - Objectives: prevent deformation and vicious attitudes, maintain or increase joint mobility, increase strength and muscle rezistței, kinetic treatment should be early, continuous, permanent, adapted evolutionary stage of each patient, the type of deformation adapted existing adapted restantului actual running phase, adapted functional objectives of the needs subiectului.Ergoterapie.(2)

Introduction

RA causes a chronic, symmetric, erosive synovitis of joints with synovial. All the joints can be involved. The hallmark of the disorder is chronic, symmetric polyarthritis (synovitis) that affects mostly the hands and feet,signs and symptoms:during the physical examination it is very important to look for the following:stiffness (more than 30 minutes), tenderness, pain on motion, swelling limitation of motion, deformities, loss of muscles strength,muscles hypotrophy-atrophy.(2) The most important and frequent deformities of the hand are:1. Metacarpophalangeal joints - ulnar deviation:2. Fingers-"swan-neck" deformity results from contracture of the interosseous and flexor muscles and rupture of tendons of the fingers, resulting in a flexion of the MCP joint,hyperextension of PIP joint, and flexion of the DIP joint (see Fig.1) 1."boutonnière" deformity consists of hyperflexion of the PIP and hyperextension of the DIP joints (see Fig. 1(2).2."mallet" deformity is the hyperflexion at the PIP,3."Z" deformity of the thumbs (see Fig. 1,2bis)(11)Extra-articular manifestations of RA:Systemic severe morning stiffness, fatigue, malaise, fever, tiredness,weight loss. 1.Skin - rheumatoid nodules, vasculitic lesions.2.Respiratory - interstitial lung disease.3.Hematologic - hypochromic-microcytic anemia, Felty's syndrome.4.Neurologic - entrapment neuropathies, myelopathies related to cervical spine instability, depression.5.Cardiac - inflammatory pericarditis, valvular dysfunction.6.Metabolic bone disease – osteoporosis.(2)



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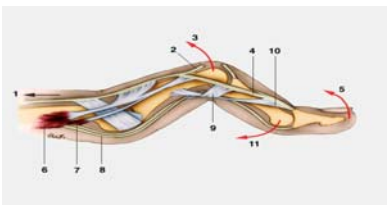

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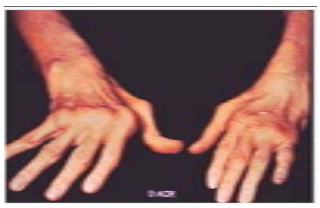

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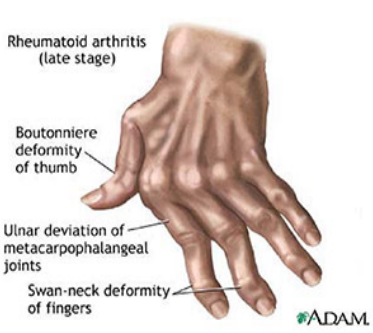

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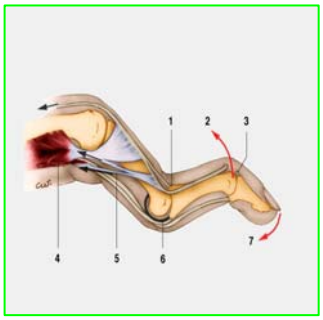
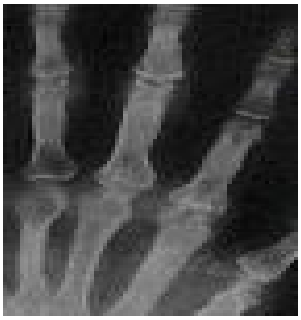
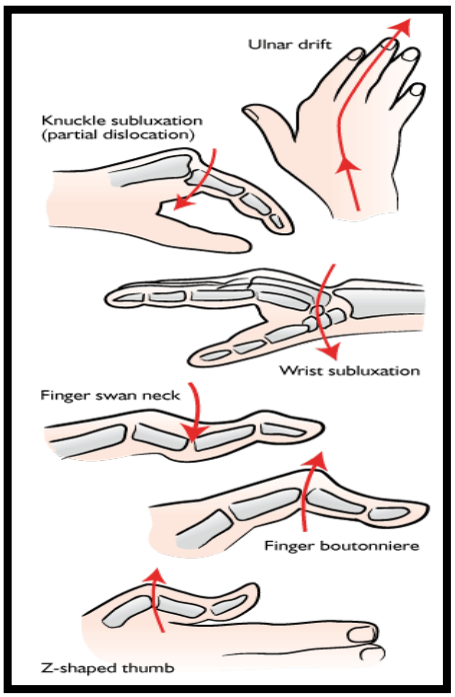
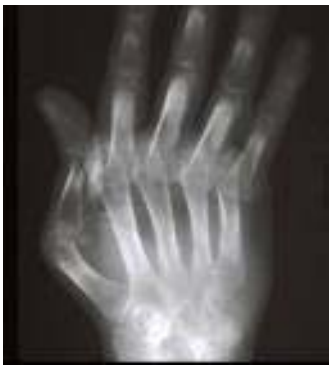


Fig.1. Rheumatoid arthritis - up:1.Boutonnièr deformity;down:2.Swan neck deformit3.Ulnar deviation 4."Z" deformity of the thumbs.







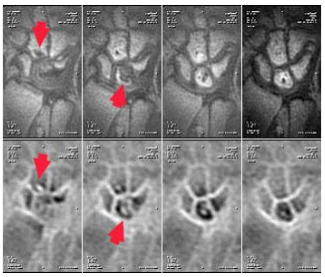


Fig.2 Radiographic changes - erosions or unequivocal bony calcification localized in, and juxta-articular osteoporosis, space narrowing,erosions, diffuse osteoporosis, luxations, and deformities ,anchilozing. RMN

Criteria for RA (1987, American College of Reumathology Revised)Morning stiffness - lasting at least 1 hour before maximal improvement.**1**.Arthritis of 3 or more - At least 3 joint areas simultaneously have had soft-tissue swelling; joint area fluid observed by a physician.**2Arthritis** of hand joints - At least 1 area swollen (as defined above) in a wrist, MCP, or PIP joint.**3**.Symmetric arthritis - Simultaneous involvement of the same joint areas (as defined in criterion 2) on both sides of the body (bilateral involvement of PIPs,MCPs, or MTPs is acceptable without absolute symmetry) **4**.Rheumatoid nodules - Observed by a physician.**5.**Serum rheumatoid factor - Abnormal amounts of serum RF demonstrated by any method. (Studies have shown that around 5% of control subjects present with a positive test result.)**6**.Radiographic changes - Must include erosions or unequivocal bony calcification localized in, or most marked adjacent to the involved joints.**7.**A patient is considered to have RA if he or she satisfies at least 4 of these 7 criteria. Criteria 1-4 must have been persisted for at least 6 weeks(1.)**Causes:**The cause of RA is still unclear; there are several incriminating factors as: infectious, hereditary, endocrinic, metabolic, occupational, and psychosocial factors .**Diagnosis differentials**:Osteoarthritis, Systemic lupus erythematosus ,-Gouty arthritis ,Infectious arthritis,Reactive arthritis ,Paraneoplastic syndromes ,Ankylosing spondylitis ,Psoriatic arthritis.**Laboratories studies:***Rheumatoid factor* (RF) is present in 75% of the cases, and is an *immunoglobulin M* (IgM) auto-

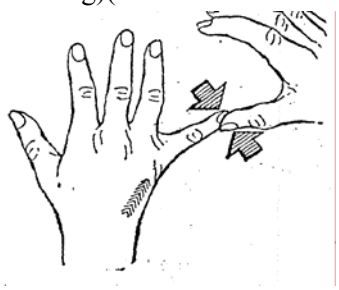
antibody directed against the Fc fragment *of immunoglobulin G* (IgG).*Erythrocyte sedimentation rate* is elevated, and it is a good marker of diseases activity. Gamma globulins are usually elevated*, leukopenia* may occur in the presence of *splenomegaly* (Felty syndrome) or as a side effect of drug therapy. The platelet counts, *C-reactive protein* are often elevated.*Antinuclear* antibodies are present in 20% of patients, although in lower titers than in lupus.Joint fluid examination reveals specific changes for inflammatory arthritis end antibodies CCP, specific changes for inflammatory arthritis.(2).

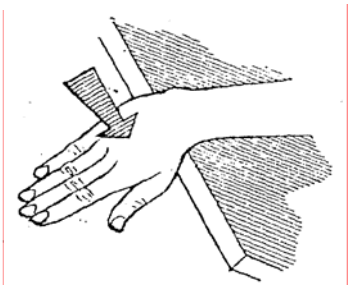
Imaging Studies: Plain radiographs are most valuable and specific. The earliest changes occur in the wrists and fingers or feet, and consist of soft tissue swelling and juxta-articular osteoporosis, space narrowing. Later changes are erosions, diffuse osteoporosis, luxations, and deformities.

Rehabilitation Program: The most important goals include:pain relief,increasing ROM (range of motion),increasing strength and endurance,prevention and correction of deformities, counseling and education for the management of the restrictions made by the disease.Treatment modalities are the following: medication,exercise program occupational therapy.massage therapy, electrotherapy, splint, braces, orthotic devices, walking aids,heat and cold therapy,spa-therapy,surgical car,psychotherapy .Various physical modalities are widely used, but only a few studies , evidence based. This demonstrates the complexity of the disorder and the impossibility to find a proper and univocal treatment (3 ***Medications:***The goals of pharmacotherapy are to reduce morbidity and prevent complications. The major categories are:*non steroidal anti-inflammatory drugs* - NSAID (e.g., celecoxib, etoricoxib,nimesulid, meloxicam, diclofenac),*steroidal anti-inflammatory drugs* - SAID (corticosteriods - e.g.,predinisone, betamethasone), *disease modifying antirheumatic drugs* - DMARDs (e.g., methotrexate, gold compounds, sulfasalazine, antimalarials, D-penicillamine, leflunomide), or others with more immunosuppressant effects (e.g., cyclophosphamide, azathioprine, cyclosporin),*biologic treatment* (e.g., infliximab, etanercept, adalimumab, anakinra.

***Exercise program(11) Kinetotherapy*Physical exercise** is the most important part of the rehabilitation management of RA. Group exercise should be done whenever possible.beneficial effects of exercise programs for patients with rheumatic diseases:Increases and maintains joint motion<Re-educates and strengthens muscles:Increases static muscle endurance.Increases aerobic capacity.Decreases the number of swollen joints.Enables better biomechanical joint function g. .Increases bone density.Increases overall patient function and well-being (fitness and wellness)*Factors to be considered* when designing an exercise program for patients with inflammatory arthritis:Stage of joint involvement.Stadium of systemic involvement.Age of patient.Comorbid medical conditions.Compliance.Preparation for exercise and exercise sequence.Un fortunately in most patients exercise increases pain, and they also feel constantly tired as a result of reduction of aerobic capacity and muscular strength; these are the main reasons for lack of compliance. The first choice of technique, and very useful is rest, not only for RA but all inflammatory rheumatic diseases, mostly in acute phases, but prolonged rest can be harmful (see table I).(3).The best method to rest the joint is *splinting.Techniques used in RA*: active and passive motion,isometric exercise, isotonic and stretching exercises are welcome if they are well done (should be avoided in acute phases), and aquatic therapy.One of the most important advises is to "respect pain*": none of the exercises should be forced*, because it can increase inflammation, fluid accumulation, and tendon ruptures.

Kinetotherapy. Objectives: ***Prevent-deformation-and-vicious-attitudes***.Deviation of cubits forearm and fingers of the radial faces;Mobilization punch in flex-extension will be associating a degree of inclination cubitus .Refreshing cubital posterior (strained if not before) - enable mobilize resistance against the opposite kinetotherapists:Request exaggerated finger in a direction cubital is offset by: -integrity-of-the-collateral-ligaments-(rest-articular-local-,orteza);-for-index-enough-muscle-strength-of-the-first-dorsal-interosos-(refreshing-throughcontractions-resistive);-for-auricular-enough-to-power-opozant-is-bone(refreshing)(





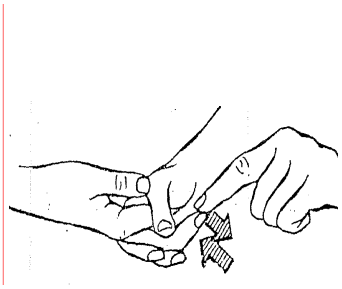
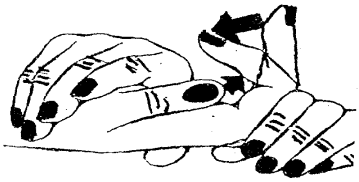
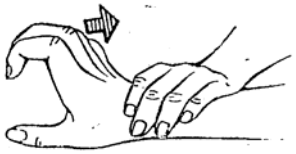


Fig.3.Refreshing-opposer-muscle-of-auricular Fig.4. Refreshing of cubital Fig.6.Refreshing of flexor common superficial.

posterior muscle





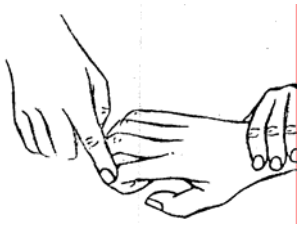
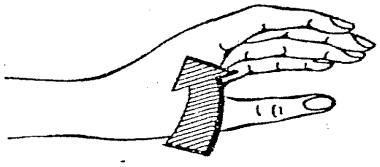


Fig.5. Dissinergism muscle-flexion E- F. and extenson . Fig .7. Refreshing of common extensor fingers Fig .8.Refreshing-of-extensing-with-fingers-in-flexion Manua-lcontrarezistence-progressive-oneach-finger.

Prevent-deformation .Finger in the neck of the swan .Kinetic program . Refreshing-extensions-punch.(fig.9).Meal at the edge of hand, the girl web down, fingers flectate ,perform active and active resistance, associated with extension fist inclination cubits resistance-is-applied-metacarpianul-V.(1)



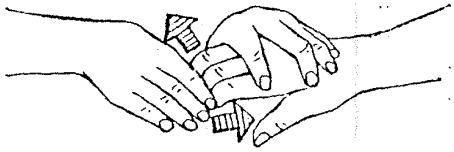


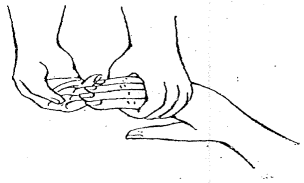
Fig.9.Refreshing-of-the-extensions-punch Fig.10.Active mobilization of MCF articulatiior, IF rectitude

Prevent-deformation.**Deformation-in-buttonhole.**Refresing-of-the-common-flexor-deeply-fingers.Flex-extension-at-MCF

Mobilization are not flexible in IFP (avoid slipping bandeletes side of the stretcher). Movements are active in only one joint articulations with the restraint should not participate in-the-movement

Active mobilization of MCF articulatiior.(fig.10,11)

Extension-to-enable-contrarezistenta-articulations IFP in keeping with flexible articulations MCF .(fig.11,12)



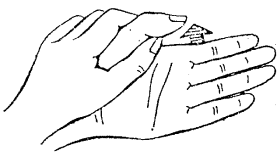
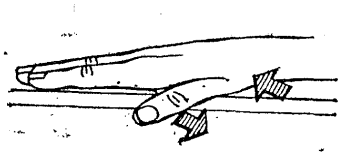
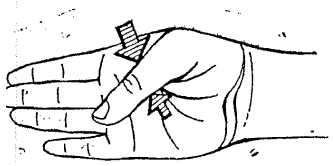


Fig.11.Flexion active contrarezistence Fig.13.Refresing along the abductor of trumb I.F.D. and l.F.P. whuit contrarestences

Prevent-deformation**.Police-in-„Z„**

In the early stages - in policelui mobilization and opposition abductie + IF restraint and MCF-rectitudine-in-order-to-prevent-hiperextensia-F2 In the late phase -maintenance-pense police mobilization through digital articulatiei trapezo-and-metacarpal-index.(fig.12,13,14,)





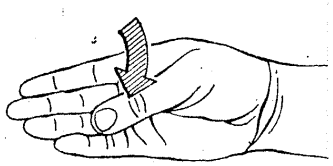


Fig.12. Passive mobilization of trumb in abduction and opposition, with blocking IFP. Fig .14.Refresing short of trumb.

Refresing along the abductor of police. Hands on the table face down web, policele the edge table, abduced the police, il plan goes before the other fingers, the first resistance metacarpian(fig.12-13)Girl with hands up web, flex proximal phalanx on the first metacarpian, the trumb. Is-led-in-resistanc-against-the-web-of-phalanx-I(fig.14) .

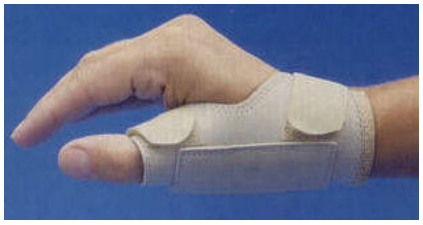
Dorsal face with the hand on the table is rounding strong and opposing policele of finger IV (fig.15.)Signs of excessive exercise in patients with RA (affirmable for all rheumatic diseases): post-exercise pain of more than 2 hours,undue fatigue,unexplained weakness,increased joint swelling.Aquatic therapy should be considered when patients are not in acute phase; the warmth and buoyancy of the water help the muscles relax and make some exercises easier to perform. Re-education of walking can be started in the pool.

Occupational therapy).Plays an important role in the rehabilitation of patients with RA for the following reasons:gives motivated action for the patients,teaches the physiological gestures and prevents joint deformations,deviations (joint protection),offers independency,learn ADLs which are modified by the disabilities.() ***Massage therapy***. Massage should be used because of the following effects:pain relieve,muscle relaxant,increase flexibility,hyperemia,facilitate exercise program,other effects of massage (cardiovascular, respiratory, metabolic).In acute phase massage will avoid inflammated joints and it will treat other segments (e.g., back or arms).()***Electrotherapy***. It is a very useful treatment modality because of the following effects:ameliorating pain,stimulating circulation ,decreasing contractures,wemay choose:low frequency current (TENS, diadynamic) medium (interferential),ultrasound,low LASER-therapy. ***Splint, braces, orthotic devices, walking aids***.Splints are devices supporting or increasing the function of part of the body. There are three main roles of splints: Support-offers a correct Alignment-Protection (S-A-P), other functions are Correction and Immobilization.Functional classification of the orthosis used in RA:

Static or passive splints, which usually have no moving parts and immobilize or rest a joint or limb.Dynamic or lively splints, often have movable parts and allow controlled movement.Orthotic devices have the major role to prevent and correct deviations, and also reduce the signs of inflammation in patients with RA. (see *Figure 16,17,18,19)*

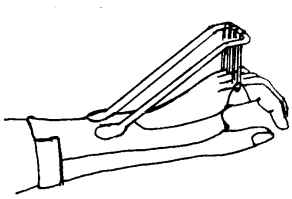
Once a deformity has been detected the whole team should focus on eliminating it, or at least preventing it from getting worse.Walking aids should be considered if there are severe deformities which make walking difficult, (see)Hand and wrist static splint

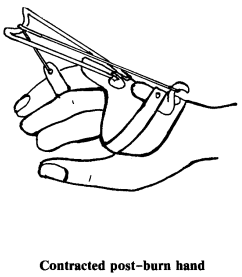
Specific attention need in bracing the cervical spine in subluxation/luxation. Sometimes neurosurgical inervention is needed.



(Fig. 16. Static or passive splints for the trumb,

Fig.16 bis Hand and wrist static splint (9)





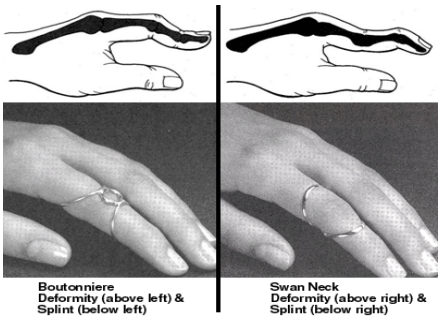


Fig.17. Dynamic or lively splints,1.Fig.18.Dynamic or lively splints2. Fig.19. Splint for boutonniere deformity end Swan neck(13)

Heat and cold therapy Patient's preference should direct the prescription of heat or cold.Cold is preferable **for** treatment **of** an acutely inflamed joint. Application of cold results in decreased pain and decreased muscle spasm. Cold may be delivered by ice packs, topical sprays, or ice water.In other cases warmth is well tolerated and useful as a pain reliever and for reducing stiffness. Warm therapy is frequently performed by wax bathing the hands, feet and/or knees. After the wax is peeled off the patient is asked to work through a few exercises (mobilization).Heat treatment should be followed by exercise.

Spa-therapy.Spa-therapy is used in a stabile stage of RA. There is evidence based for the use of thermal, sulfurous, salted and carbonated mineral water and for mud therapy as well.

Surgical care. The purpose of surgical intervention in patients with RA includes correction of deformities and functional improvement. A number of surgical procedures are available to obtain these goals (excision of synovial membrane, reconstructions, and joint replacements).(11)

RECUPERAREA KINETICĂ A PACIENŢILOR CU POLIARTRITĂ REUMATOIDĂ (PR)

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Cuvinte cheie: poliartrită, kinetoterapie, anchiloză, deviaţie, orteze.

Rezumat

Tabloul clinic al mâinii reumatoide este complex cu afectări multiple la nivel osteo-articular, muscular, tendoane, ligamente . Leziuni la nivelul pumnului:tenosinovita extensorilor ,sinovita radio-carpiană ,sidrom de cap cubital ,sidrom de canal carpian ,redoarea pumnului, mai ales în flexie, sub actiunea preponderenta a flexorilor, iniţial subluxaţie palmară, ulterior asociată cu deviaţia radială a pumnului.Leziuni la nivelul degetelor: deviatţa cubitală a degetelor,.degete "în gît de lebădă,degete "in butonieră, policele "in Z", tenosinovitele mâinii .Evaluarea clinico – funcţională orientează programul recuperator,conturează metodologia adecvată fiecarui caz, obiectiveaza efectele clinice obţinute prin anumite proceduri,orientează asupra prognosticului.Tratamentul mâinii reumatoide.Obiective:conservarea capacitatii funcţionale a mâinii reumatoide, în primul rând sub aspect musculo-articular,prezervarea capacităţii functionale restante (pentru fiecare etapă în parte a bolii),adaptarea la activităţile curente în funcţie de restantul functional real,menţinerea autonomiei funcţionale prin exploatare maximală a capacităţilor reale restante. Kinetoterapia – Obiective: prevenirea deformărilor şi a atitudinilor vicioase,menţinerea sau creşterea mobilităţii articulare,creşterea forţei şi rezisteţei musculare,tratamentul kinetic trebuie să fie,precoce , continuu, permanent ,adaptat fazei evolutive a fiecarui pacient, adaptat tipului de deformare existent, adaptat restantului funcţional real de etapă, adaptat necesităţilor functionale obiective ale subiectului.Ergoterapie.(2)

Introducere

Poliartrita reumatoidă (PR) este recunoscută în prezent ca o **boală severă, autoîntreţinută şi progresivă,** care induce leziuni osteoarticulare importante, cu deficit funcţional şi pierderea capacităţii de muncă, asociindu-se cu o mortalitate prematură considerabilă, ce reduce semnificativ speranţa de viaţă a bolnavilor cu PR.(1)

Poliartrita reumatoidă (PR) numită şi artrită reumatoidă (AR) este o artropatie cronică, cu caracter progresiv, distructiv şi deformant, însoţită de multiple manifestări sistemice.(1)

Tabloul clinic al mainii reumatoide. Complex.Afectari multiple la nivel osteo-articular, muscular, tendoane, ligamente

Leziuni la nivelul pumnuluiTenosinovita extensorilor - o tumefactie trapezoidala care coboara pana la baza metacarpienelor.Sinovita radio-carpiana - o masa inflamatorie fixa.

Sdr. de cap cubital - o proeminenta a stiloidei cubitale palpabila datorata subluxatiei posterioare a capului ulnei prin artrita radio-ulnara si ruperea ligamentului colateral al ulnei.

Sdr de canal carpian - inflamatia carpului + lipsa de elasticitate a ligamentului transvers,asociat cu compresia nv median la trecerea sa prin canalul carpian

Redoarea pumnului, mai ales in flexie, sub actiunea preponderenta a flexorilor, initial subluxatie palmara, ulterior asociata cu deviatia radiala a pumnului.

Leziuni la nivelul degetelor

1. Deviatia cubitala a degetelor **lez**iune caracteristica - subluxatia anterioara MCF apare gradat

primul semn - instabilitatea articulatiei - tractiunea tendoanelor lungului flexor care deplaseaza artic. slabita si instabila, in directie palmara - extensorii contracareaza flexia ⇨ devierea este reductibila ⇨ulterior extensorii sunt si ei antrenati in deviatia cubitala, parasesc promotoriul MCF, ajung in spatial intermetacarpo – falangian

Alte consecinte: dizlocatia artic RC inferioare, subluxatia dorsala a capului cubital (coafarea apofizei stiloide), deplasarea ant. a tendonului cubitalului posterior

2.Degete "in gat de lebada"Sinovita proliferativa a MCF si subluxatia FI la nivelul MCF ⇨ hiperextensia IFP (actiunea a extensorului asupra FII) ⇨ alunecare dorsala a tendoanele extensoare laterale spre linia mediana, se relaxeaza si pierd actiunea de extensori asupra FIII care este supusa actiunii actiunii preponderente a flexorului comun profund asupra FIII ⇨ flexia IFD- afectarea prehensiunea digito-palmara si polici-digitala

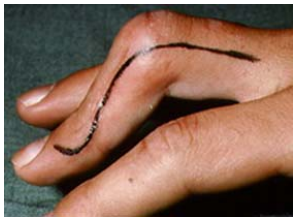
3.Degete "in butoniera" - Sinovita proliferativa a IFP care invadeaza si distruge bandeleta mediana a aparatului extensor la nivelul fetei dorsale a IFP, cu afectarea insertiei extensorilor pe falanga II ⇨ flexia IFP si pierderea extensiei active. - Bandeletele laterale ale extensorilor ,aluneca in pozitie palmara, pe fata laterala a IFP care proemina intre ele ca intr-o butoniera.,nemaifiind frenate prin insertia pe FII si fiind distruse la nivelul fetelor laterale ale IFP⇨ hiperextensia FIII.Flexia moderata a IFP este tolerabila, neafectand prea mult prehensiunea. Flexia mare a IFP afecteaza insa prehensiunea digito-palmara si polidigitala.

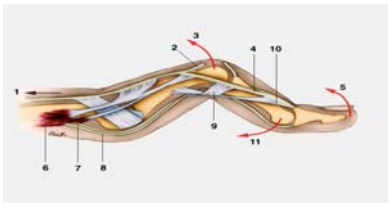
4.Policele "in Z" - sinovita MCF ⇨ flexia FI ca urmare a insuficientei scurtului extensor si actiunii predominante a muschilor tenarieni - ruptura tend. flexorul profund alpolicelui ⇨ hiperextensia IF - afectarea articulatiei trapezo-metacarpiene cu atitudine antalgica in flexie si adductie a primului metacarpian - ruptura tendonului lungului extensor ⇨subluxatia externa a bazei primului metacarpian .(6)

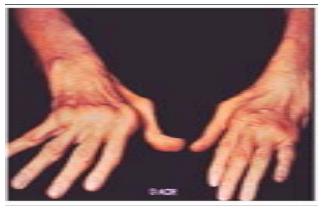
5. Tenosinovitele mainii .2/3 bolnavi cu PR, frecvent in etapa initiala .Tenosinovitele inflamatorii initiale regresive ⇨ leziuni ireversibile. Rupturi posibile - cazuri vechi, varstnici, tendoane fragilizate prin leziuni de vecinatate (sinovite, subluxatii etc)(2)

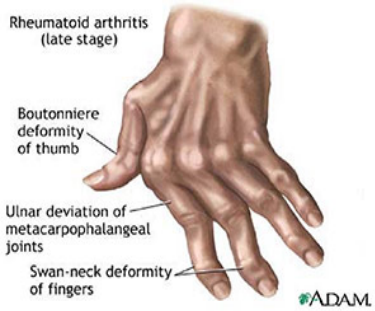
Acestea sunt: tenosinovita pumnului si a policelui (a primului tunel dorsal – tenosinovita de Quervain) - pentru tend. lungului abductor si scurtului extensor al policelui,tenosinovita canalului digital (a flexorilor), mai frecvente la index si auricular; Tenosinovita nodulara (degete "in resort"): flexia degetului normala dar extensia dupa flexie nu este posibila decat dupa un "declin" dureros, sau cu asocierea unei extensii pasive.Toate tipurile lezionale pot fi asociate cu : noduli reumatoizi in zonele de presiune, fen. de vasculita, tulburari neurologice

1. **2.** **3.**









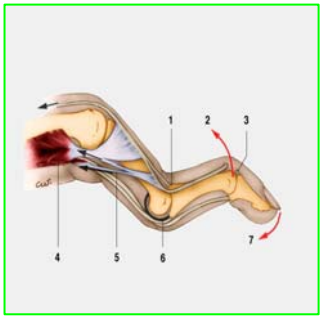


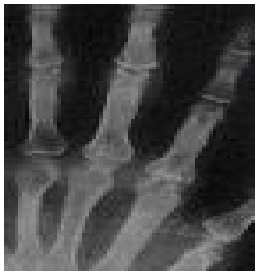
Fig 1.Deget în butonieră.2.Deget în gît de lebădă.3.Deviaţie cubitală dg.4.Police în Z

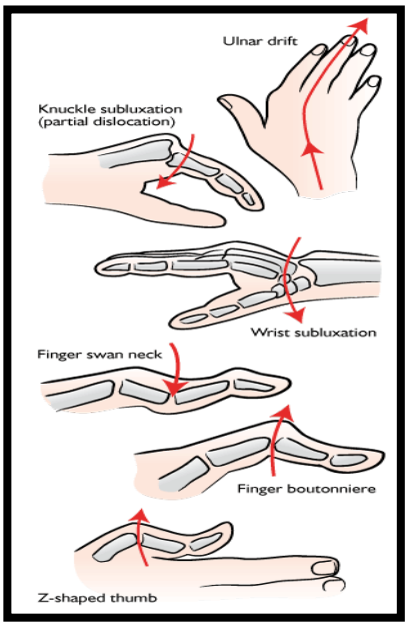
Evaluarea Clinico – Functionala

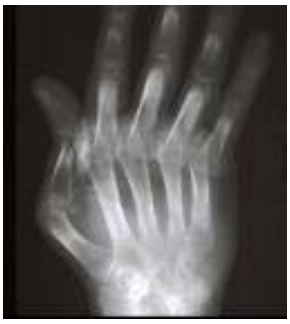
- ✓ orienteaza programul recuperator
- ✓ contureaza metodologia adecvata fiecarui caz
- ✓ obiectiveaza efectele clinice obtinute prin anumite proceduri
- ✓ orienteaza asupra prognosticului

Bilant evolutiv (durata redorii matinale, intensitatea durerii – VAS si indice Ritchie, nr de articulatii tumefiate, sdr biologic de inflamatie, ex radiologic).Bilant articular Bilant muscular.Testarea capacitatii aerobe – test de mars.Deformari articulare reductibile/ ireductibile si consecintele functionale.Bilant functional (Lee, HAQ) – prehensiunea si locomotia(5)

Diagnosticul imagistic al mainii reumatoide







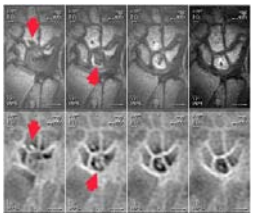


Fig.2 Diagnosticul imagistic al mainii reumatoide

Afectare precoce: stiloida ulnara - sediul de electie al primelor modif. Rx (osteoporoza, microgeode, eroziuni marginale); artic MCF II si III

Stadializarea - functie de st. anatomica, in stransa rel. cu aspectul Rx. **Stadiul I, precoce:** aspect Rx norm +/- osteoporoza. **Stadiul II, moderat**: osteoporoza vizibila rrx +/- distructii osoase, posibila deteriorare a cartilajului articular; atrofie musc; limitarea miscarilor artic; abs. deformarilor articulare; +/- leziuni de parti moi, noduli reumatoizi, tenosinovite.(3)

Stadiul III, sever :osteoporoza, distructiile osului si cartilajului evid. Rx;

deformare artic cu subluxatii, deviere ulnara sau hiperextensie, dar fara fibroza sau anchiloza;atrofie musc marcata si extinsa ;prez de noduli reumatoizi si tenosinovite.

Stadiul IV, terminal : criteriile stadiului III + fibroza articulara si anchilozanta.

Rezonanta magnetica nucleara (RMN)

- evidentiaza precoce eroz. osoase, chistele osoase subcondrale, alterarea cartilajului artic, hipertrofia sinovialei, starea structurilor periartic, modificarile de la nivelul unor localizari mai greu de observat radiologic.

- cea mai buna modalitate de evaluare a eficientei unui tratament remisiv in stadiile clinice (monitorizarea distructiilor articulare)

TRATAMENTUL MAINII REUMATOIDE. Obiective

- Conservarea capacitatii functionale a mainii reumatoide, in primul rand sub aspect musculo-articular
- Prezervarea capacitatii functionale restante (pentru fiecare etapa in parte a bolii)
- Adaptarea la activitatile curente in functie de restantul functional real
- Mentinerea autonomiei functionale prin exploatare maximala a capacitatilor reale restante

Combaterea durerii si inflamatiei .Medicatie.Mijloace fizice - electroterapia de joasa frecventa - CDD in formula analgetica, curent galvanic, TENS - US, laser - caldura blanda in afara puseelor inflamatorii acute - masaj.Repaus - general (8h nocturn, 1h inainte si 1h dupa masa) - segmentar al mainilor (in puseu – maxim 3 saptamani, amelioreaza durerea si inflamatia in fazele initiale, previne deformarea in fazele avansate). Postura (umar – in semiflexie si usoara abductie, cot – in semiflexie 80º si pozitie intermediara de pronosupinatie, pumn – in extensie 20-30º, degete - semiflectate) Orteze statice / atele in

perioadele de puseu inflamator – pansamente compresive, comprese aplicate in scop decongestive.*Combaterea atrofiilor musculare*; **programul kinetic adaptat**,caldura blanda , uscata/umeda,masaj (bland, resorbtiv, ascendent),electroterapia de tip vasculotrofic muscular (curentii interferentiali, curent galvanic) *Cresterea mobilitatii articulare*.Kinetoterapie pasiva/ activa (± hidrokinetoterapie).*Combaterea leziunilor secundare de parti moi periarticulare (tendinite, tenosinovite, bursite)*.In stadiul acut – imobilizare, aplicatii de gheata, comprese reci cu solutie de sulfat de Mg, US cu hidrocortizon, laser.Masaj – o forma particulare masajul transversal profun dupa metoda Cyriax.Electroterapie antalgica.Kinetoterapia adecvata stadiului clinic, resurselor functionale si posibilitatilor reale de compensare.*Combaterea contracturilor musculare* . Posturari. Caldura. MasajCurenti interferentiali aplicati in formula decontracturanta .*Combaterea deformarilor articulare*

In stadiile acute – imobilizari pe orteze de repaus.In stadiile subacute/ cronice – tonifiere musculara a grupelor hipotone, pentru a preveni contractia fals excesiva a antagonistilor (deformarile reversibile se corecteaza numai activ, niciodata pasiv) + orteze de corectie

Combaterea modificarilor circulatorii ale extremitatilor ⇨ aparute datorita spasmelor vasculare, cu predilectie la nivelul circulatiei periferice prin procesele neurovegetative (in principal simpaticotonie), procesele inflamatorii specifice (vasculita reumatoida) Proceduri alternante de hidroterapie locala, bai de CO2/ mofete

*Combaterea demineralizarii osoase*Kinetoterapia activa, analitica, la limita durerii

MIJLOACE DE TRATAMENT .I. Medicamentos: terapia de fond, simptomatica, condroprotectoareII. Fizical- kinetic:aplicatiile de caldura cu urmatoarele efecte: diminuarea spasmului muscular si a durerii, cresterea extensibilitatii colagenului si a elasticitatii structurilor periarticulare, accentuarea resorbtiei infiltratelor sau edemelor; de regula se aplica umeda in PR, uneori sub forma de hidrokinetoterapie;balneo/hidroterapia,aplicatii de curent galvanic cu urmatoarele efecte: antalgic, miorelaxant, vasculotrofic; se aplica sub forma de bai galvanice, galvanizari, ionoforeza,electroterapie (inclusiv ultrasunetul) pentru efectele terapeutice deosebite analgetice, de asuplizare a structurilor periarticulare, decontracturant masajul folosit pentru efectele sale de crestere a circulatiei musculare si a tonusului muscular (combate atrofiile),kinetoterapia – terapie de fond .III. Terapie ocupationala.IV. Terapii alternative.V. Psihoterapia.VI.Tratamentul chirurgical.In timpul puseelor de evolutivitate se indica:repausul articular, de regula ortezat - orteze de repaus - orteze de corectie (a deformatiilor) - orteze de functiune.Kinetoterapia este numai activa si se efectueaza in limita functionala ,se lucreaza fara durere

Kinetoterapia – Obiective: **Prevenirea deformarilor si a atitudinilor vicioase**

Deviatia cubitala a degetelor si radiala a carpului.Deviatia cubitala a degetelor si radiala a carpului.Tonifierea flexorilor comun profund si superficial al degetelor.Tonifierea aparatului extensor al degetelor.*Degetul in gat de lebada*.Program kinetic : - tonifierea flexor comun superficial degete . ***Deformatia in butonieră*** *- tonifierea extensorilor pumnului.Tonifierea flexorului comun profund degete .Flexie-extensie la nivelul MCF.Nu se fac mobilizari in flexie a IFP (se evita alunecarea bandeletelor laterale ale aparatului extensor).Miscarile active se realizeaza doar la o singura articulatie cu imobilizarea articulatiilor care nu trebuie sa participe la miscare.*

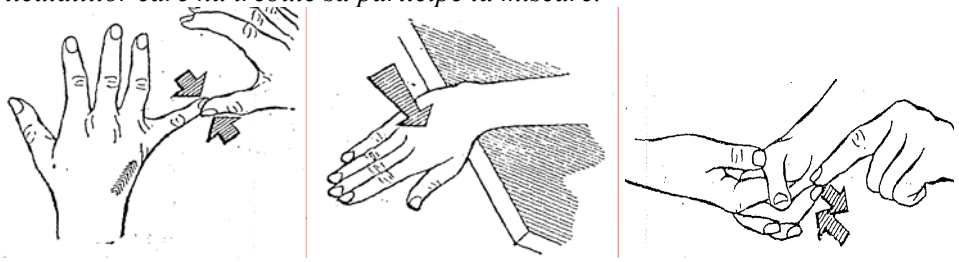


Fig 3.Prevenirea deformaţiilor şi atitudinilor vicioase.

Fig 3.Prevenirea deformaţiilor şi atitudinilor vicioase

Policele in Z .In faza incipienta - mobilizarea policelui in abductie si opozitie + imobilizarea IF si MCF in rectitudine pentru a preveni hiperextensia F2

In faza tardiva – mentinerea pensei police-digitale prin mobilizarea articulatiei trapezo-metacarpiene si a indexului

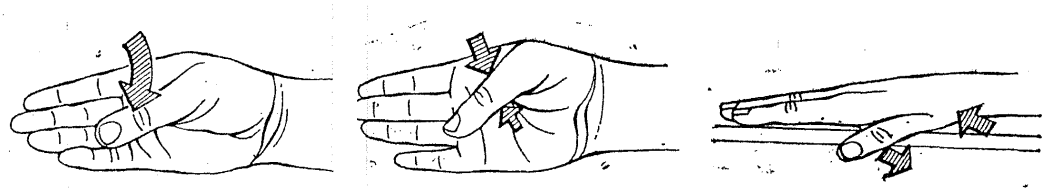


Fig.4.Profilaxia policelui în Z

Menţinerea sau creşterea mobilităţii articulare.

Mobilizari active, eventual active ajutate, de preferinta in apa.Exerciţiile pasive pot fi necesare pentru a atinge un maxim de amplitudine.Exercitii izotonice cu sau fara rezistenta moderata sau descrescanda la finalul miscarii pentru a nu fi activat antagonistii.Tehnici de facilitare neuromusculara Kabat.Stretching activ si pasiv in faza subacuta si cronica

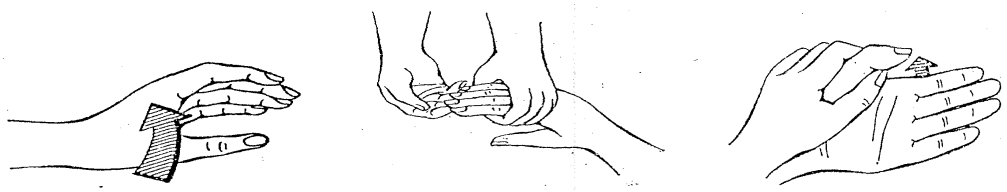


Fig.5. Creşterea forţei si rezistentei musculare

Cresterea fortei si rezistentei musculare.Un muschi nefolosit pierde 3% din masa sa intr-o saptamana

In faza acuta : exercitii izometrice, contractie maxima 1/zi.In faza subacuta : exercitii izometrice - 6 contractii/zi, izotonice cu rezistenta, scripeto-terapie cu rezistenta, terapie ocupationala.In faza cronica : ex izometrice, izotonice + hidroterapie, terapie ocupationala

ORTEZE -obiectivul terapeutic.Orteze de repaus si de protectie articulara – prin care se urmareste: pozitia de protectie articulara,evitarea sau limitarea redorii,controlul durerii, controlul tendintei la deformari/deviatii articulare si periarticulare, **asigurarea unei maini functionale**. Orteze de corectie (rigide sau dinamice). Orteze de substitutie functionala (statice sau dinamice).Orteze de repaus.Orteze de corectie.Orteze dinamice(Nica)

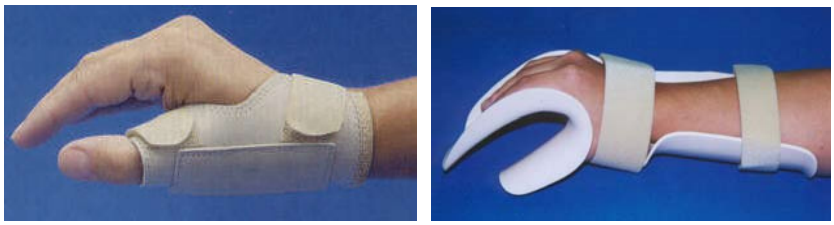


Fig.6.Orteze fixe de pumn şi police.

TERAPIA OCUPATIONALA (Ergoterapia).Obiective generale:ameliorarea durerii si inflamatiei,combaterea/ ameliorarea atrofiilor musculare,ameliorarea/ compensarea limitarii mobilitatii articulare,prevenirea/ compensarea contracturilor/ retracturilor (si a altor leziuni de parti moi),prevenirea/ compensarea deformarilor articulare,ameliorarea modificarilor circulatorii, combaterea/ ameliorarea demineralizarii osoase. Deviatia cubitala a degetelor Prevenirea ei se realizeaza prin:folosirea prehensiunii bidigitale termino-terminale,evitarea prehensiunii termino-laterale si subtermino-laterala (accentueaza deviatia),in performarea prehensiunii polici-digito-palmare se va evita pronatia.Activitati recomandate: Scris cu inele corectoare.Confectionarea margelelor din hartie.Rularea unei fesi sau a altor materiale in directie radiala

Fig. 7.Folosirea prehensiunii bimanuale pentru suplinirea prehensiunii digito-palmare(8)

Deformatia degetelor " in gat de lebada"

Activitati recomandate:Cusut.Brodat cu acul.Impletit cu andrelele.Crosetat

Deformatia degetelor " in butoniera"Activitati recomandate:Insirarea margelelor pe ata.Insirarea margelelor de diferite dimensiuni.Cusut, brodat.Deformatia policelui " in Z"

- aceleasi activitati ca pentru deviatia cubitala.Terapia ocupationala trebuie sa asigure: Protectie articulara .Prudenta fata de durere – reducerea activitatii in functie de intensitatea durerii.Modificarea schemelor de miscare . Distribuirea greutatii pe mai multe articulatii : Se foloseste o arie maxima a palmelor pentru sustinerea unui obiect, cu degetele in extensie si articulatia radio-carpiana in extensie sau pozitie neutra cu cotul in unghiuri variabile de flexie,folosirea articulatiilor mari pentru anumite actiuni: Se foloseste palma sau marginea cubitala pentru impingerea unui obiect (nu se folosesc varfurile degetelor).Folosirea articulatiilor in pozitiile cele mai stabile si functionale. Reducerea efortului.Evitarea pozitiilor care favorizeaza deformarile. Conservarea energiei

Concluzii *Tratamentul functional* al mainii reumatoide: Trebuie să fie precoce.Trebuie să fie continuu.Trebuie permanent adaptat fazei evolutive a fiecarui pacient.Trebuie adaptat tipului de deformare existent.Trebuie adaptat restantului functional real de etapa

Trebuie adaptat necesitatilor functionale obiective ale subiectului

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