OSTEOARTHRITIS IN 2011: MANY STEPS TO CLIMB

Osteoarthritis is a primary disorder of hyaline cartilage that results in secondary changes in subchondral bone and eventually joint failure.

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- 1.Peat G, McCarney R, Croft P. Knee pain and osteoarthritis in older adults: a review of community burden and current use of primary health care. Ann Rheum Dis 2001:60:91-97.
- 2. Spector TD, et al. Genetic influences on osteoarthritis in women: a twin study. BMJ 1996;312:940-943.
- 3. Valdes AM, Spector TD. The genetic epidemiology of osteoarthritis. Curr Opin Rheumatol 2010;22:139-143.
- 4. Anderson JJ, Felson DT. Factors associated with osteoarthritis of the knee in the first national Health and Nutrition Examination Survey (HANES I). Evidence for an association with overweight, race, and physical demands of work. Am J Epidemiol 1988;128:179-189.
- 5.Toda Y, et al. Change in body fat, but not body weight or metabolic correlates of obesity, is related to symptomatic relief of obese patients with knee osteoarthritis after a weight control program. J Rheumatol 1998;25:2181-2186.
- 6. Adebajo AO. Osteoarthritis. Baillieres Clin Rheumatol, 1995;9(1):65-74.
- 7. Gibbon VE, et al. Mseleni joint disease: a potential model of epigenetic chondrodysplasia. Joint Bone Spine 2010;77:399-404.
- 8.Yach D, Botha JL. Mseleni joint disease in 1981: decreased prevalence rates, wider geographical location than before, and socioeconomic impact of an endemic osteoarthrosis in an underdeveloped community in South Africa. Int J Epidemiol 1985;14:276-284.
- 9. Gibbon VE, et al. Mseleni joint disease: a potential model of epigenetic chondrodysplasia. Joint Bone Spine 2010;77:399-404.
- 10.Kwan Tat S, et al., Targeting subchondral bone for treating osteoarthritis: what is the evidence? Best Pract Res Clin Rheumatol 2010;24:51-70.
- 11.Rannou F, et al. Splint for base-of-thumb osteoarthritis: a randomized trial. Ann Intern Med 2009;150:661-669.
- 12.Mejjad O, Serrie A, Ganry H. Epidemiological data, efficacy and safety of a paracetamol-tramadol fixed combination in the treatment of moderate-to-severe pain. SALZA: a post-marketing study in general practice. Curr Med Res Opin 2011;27:1013-1020.
- 13. Tramer MR, et al. Quantitative estimation of rare adverse events which follow a biological progression: a new model applied to chronic NSAID use. Pain 2000;85:169-182.
- 14. Chan FK, et al. Management of patients on nonsteroidal anti-inflammatory drugs: a clinical practice recommendation from the First International Working Party on Gastrointestinal and Cardiovascular Effects of Nonsteroidal Anti-inflammatory Drugs and Anti-platelet Agents. Am J Gastroenterol 2008;103:2908-2918.
- 15.McGettigan P, Henry D. Cardiovascular risk and inhibition of cyclooxygenase: a systematic review of the observational studies of selective and nonselective inhibitors of cyclooxygenase 2. JAMA 2006;296:1633-1644.
- 16.Baraf HS, et al. Safety and efficacy of topical diclofenac sodium gel for knee osteoarthritis in elderly and younger patients: pooled data from three randomized, double-blind, parallel-group, placebo-controlled, multicentre trials. Drugs Aging 2011;28:27-40.
- 17. Schnitzer TJ. New pharmacologic approaches in the management of osteoarthritis. Arthritis Care Res (Hoboken) 2010;62:1174-1180.
- 18. Bruyere O, et al. Total joint replacement after glucosamine sulphate treatment in knee osteoarthritis: results of a mean 8-year observation of patients from two previous 3-year, randomised, placebo-controlled trials. Osteoarthritis Cartilage 2008;16:254-260.
- 19. Gigante A, Callegari L. The role of intra-articular hyaluronan (Sinovial) in the treatment of osteoarthritis. Rheumatol Int 2011;31:427-444.
- 20.Berenbaum F. Targeted therapies in osteoarthritis: a systematic review of the trials on www.clinicaltrials.gov. Best Pract Res Clin Rheumatol 2010;24:107-119.

CURRENT DIAGNOSIS AND TREATMENT STRATEGIES IN RHEUMATOID ARTHRITIS

Rheumatoid arthritis (RA) is a chronic inflammatory autoimmune disease that preferentially targets the synovial lining of the joints but can affect other organ systems including the lungs, heart and blood vessels.

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- 1. Nam J, Combe B, Emery P. Early arthritis: diagnosis and management. Eular On-Line Course on Rheumatic Diseases. www.eular-onlinecourse.org.
- 2. Eshed I, Feist E, Althoff CE, et al. Early rheumatoid arthritis do we really know what it means? Consistency and distribution of MRI findings according to different definitions for early rheumatoid arthritis. Clin Rheumatol 2011;30:551-555.
- 3. Allaart CF, Huizinga TWJ. Treatment strategies in recent onset rheumatoid arthritis. Curr Opin Rheumatol 2011;23: 241-244.
- 4. Aletaha D, Neogi T, Silman A, et al. Rheumatoid Arthritis Classification Criteria. Arthritis Rheum 2010; 62(9): 2569-2581.
- 5. Meyer O, Labarre C, Dougadas M, et al. Anti citrullinated protein/peptide antibody assays in early rheumatoid arthritis for predicting 5-year radiographic damage. Ann Rheum Dis 2003;62(2):120-126.
- 6. Buch MH, Emery P. New therapies in the management of rheumatoid arthritis. Curr Opin Rheumatol 2011;23:245-251.

ARTICULAR SYNDROMES IN ASSOCIATION WITH HIV INFECTION

Although articular manifestations as a result of HIV infection, apart from arthralgia, are uncommon, they may result in considerable morbidity.

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- 1. Nguyen BY, Reveille JD. Rheumatic manifestations associated with HIV in the highly active antiretroviral era. Curr Opin Rheumatol 2009;21(4):404-410.
- 2. Louthrenoo W. Rheumatic manifestations of human immunodeficiency virus infection. Curr Opin Rheumatol 2008;20(1):92-99.
- 3. Walker UA, Tyndall A, Daikeler T. Rheumatic conditions in human immunodeficiency virus infection. Rheumatology 2008;47(7):952-959.
- 4. Reveille JD. Williams FM. Rheumatologic complications of HIV infection. Best Pract Res Clin Rheumatol 2006;20(6):1159-1179.
- 5. Calabrese LH, Kirchner E, Shresatha R. Rheumatic complications of human immunodeficiency virus infection in the era of highly active antiretroviral therapy: emergence of a new syndrome of immune reconstitution and changing patterns of disease. Semin Arthritis Rheum 2005;35(3):166-174.
- 6. Mody GM, Parke FA, Reveille JD. Articular manifestations of human immunodeficiency virus infection. Best Pract Res Clin Rheumatol 2003;17(2):265-287.
- 7. Cuellar ML, Espinoza LR. Rheumatic manifestations of HIV-AIDS. Bailliere's Best Pract Res Clin Rheumatol 2000;14(3):579-593.
- 8. Njobvu P, McGill P. Human immunodeficiency virus related reactive arthritis in Zambia. J Rheumatol 2005;32(7):1299-1304.
- $9.\ Njobvu\ P, McGill\ P.\ Psoriatic\ arthritis\ and\ human\ immunodeficiency\ virus\ infection\ in\ Zambia.\ J\ Rheumatol\ 2000; 27(7): 1699-1702.$
- 10. Njobvu P, McGill P, Kerr H, et al. Spondyloarthropathy and human immunodeficiency virus infection. J Rheumatol 1998;25(8):1553-1559.
- 11. Dougadas M, van der Linden S, Juhlin R, et al. The European Spondyloarthropathy Study Group preliminary criteria for the classification of spondyloarthropathy. Arthritis Rheum 1991:34(10):1218-1227.
- 12. Ntsiba H, Ngandeu-Singwe M, Makita-Bagamboula, C, et al. Human Immunodeficiency Virus associated arthritis in Congo Brazzaville. Med Mal Infect 2007;37(11):758-761.
- 13. Mary-Krause M, Billaud E, Poizot-Martin I, et al. Risk factors for osteonecrosis in HIV infected patients: impact of treatment with combination antiretroviral therapy. AIDS 2006;20(12):1627-1635.
- 14. Ho YC, Shih TT, Lin YH, et al. Osteonecrosis in patients with human immunodeficiency virus type 1 infection in Taiwan. Jpn J Infect Dis 2007;60(6):382-386.
- 15. Chinniah K, Mody GM, Bhimma R, Adhikari M. Arthritis in association with human immunodeficiency virus infection in black African children: causal or coincidental? Rheumatology 2005;44(7):1-6.

CLINICAL EVALUATION AND DIAGNOSIS OF CONNECTIVE TISSUE DISEASES

Connective tissue diseases present in many different ways and their diagnosis can be challenging.

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- 1. Alarcon GS. Unclassified or undifferentiated connective tissue disease. Baillieres Best Pract Res Clin Rheumatol 2000;14:125-137.
- 2. Gould T, Tikly M. Systemic lupus erythematosus in a patient with human immunodeficiency virus infection challenges in diagnosis and management. Clin Rheumatol 2004;23:166-169.
- 3. Vedove CD, Del Giglio M, Schena D, Girolomoni G. Drug-induced lupus erythematosus. Arch Dermatol Res 2009;30:99-105.
- 4. Kavanaugh AF, Solomon DH. Guidelines for immunologic laboratory testing in the rheumatic diseases: anti-DNA antibody tests. Arthritis Rheum 2002;47:546-555.

ESSENTIALS OF MUSCULOSKELETAL EXAMINATION

Many doctors feel uncomfortable when examining the musculoskeletal system.

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- 1. Abou-Ray A, Abou-Raya S. The inadequacies of musculoskeletal education. Clin Rheumatol 2010;29:1121-1126.
- 2. Dequeker J, Rasker JJ, Woolf AD. Educational issues in rheumatology. Best Pract Res Clin Rheumatol 2000;14:715-729.
- Woolf AD, Akesson K. Understanding the burden of musculoskeletal conditions. The burden is huge and not reflected in national health priorities. BMJ 2001;322(294):1079-1080.
- 4. Schmale GA. More evidence of educational inadequacies in musculoskeletal medicine. Clin Orthop 2005;437:251-259.
- 5. Doherty M, Hazleman BL, Hutton CW, Maddison PJ, Perry JD. Rheumatology examination and injection techniques. London: WB Saunders, 1992.
- Doherty M, Dacre J, Dieppe P, Snaith M. The 'GALS' locomotor screen. Ann Rheum Dis 1992;51:1165-1169.
- 7. Mody GM, Tikly M, Kalla AA, Meyers OL. Approach to arthritis: Clinical guidelines. S Afr Med J 2003;99:949-962.
- 8. Aletaho D, Neogi J, Silman AJ et al. 2010 Rheumatoid arthritis classification criteria. Arthritis Rheum 2010; 62:2569-2581.

MORE ABOUT...RHEUMATOLOGY

The eye in rheumatoid arthritis

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References

- 1. Zltanaovic G, Veselinovic D, et al. Ocular manifestation of rheumatoid arthritis different forms and frequency. Bosn J Basic Med Sci 2010;10(4):323-327.
- 2. Papiris SA, Tsonis IA, Moutsopoulos HM. Sjögren's syndrome. Semin Respir Crit Care Med 2007;28(4):459-471.
- 3. Sutphin JE, Chodosh J, et al. Immune-related disorders of the external eye. In: Liesegang TJ, ed. Basic and Clinical Science Course External Disease and Cornea. San Francisco, Calif.: American Academy of Ophthalmology 2004:193-228.
- 4. Squirrell DM, Winfield J, Amos RS. Peripheral ulcerative keratitis 'corneal melt' and rheumatoid arthritis: a case series. Rheumatology 1999;38(12):1245-1248.
- 5. Kanski JJ. Cornea. In: Kanski JJ, ed. Clinical Ophthalmology. Woburn, Mass: Butterworth-Heinemann 2007:278-281.

Upper limb pain syndromes

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References

- 1. Parshant A, Bharti A, Dinesh J. Clinical approach to neck pain. Indian J Rheumatol 2010;5(4):193-198.
- 2. Walker-Bone KE, Palmer KT, Reading I, Cooper C. Criteria for assessing pain and nonarticular soft-tissue rheumatic disorders of the neck and upper limb. Semin Arthritis Rheum 2003;33(3):168-184.
- 3. Fouquet B. Clinical examination as a tool for identifying the origin of regional musculoskeletal pain. Best Pract Res Clin Rheumatol 2003;17(1):1-15.
- 4. Baring T, Emery R, Reilly P. Management of rotator cuff disease: specific treatment for specific disorders. Best Pract Res Clin Rheumatol 2007;21(2):279-294.
- 5. Farid N, Bruce D, Chung CB. Miscellaneous conditions of the shoulder: Anatomical, clinical, and pictorial review emphasizing potential pitfalls in imaging diagnosis. Eur J Radiol 2008;68:88-105.
- 6. D'Agostino MM, Olivieri I. Enthesitis. Best Pract Res Clin Rheumatol 2006;20(3):473-486.
- 7. Palmer KT. Pain in the forearm, wrist and hand. Best Pract Res Clin Rheumatol 2003;17(1):113-135.
- 8. Ankarath S. Chronic wrist pain: Diagnosis and management. Current Orthopaedics 2006;20:141-151.

Fibromyalgia

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- Wolfe F, Smythe HA, Yunus MB, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia: Report of the Multicenter Criteria Committee. Arthritis Rheum 1990;33(2):160-172.
- 2. Buskila D. Developments in the scientific and clinical understanding of fibromyalgia. Arth Res Ther 2009;1(5):242.
- 3. Winfield JB. Fibromyalgia. emedicine Rheumatology 2009. http://emedicine.medscape.com/article/329839-overview
- 4. Wolfe F, Clauw WD, Fitzcharles M, et al. The American College of Rheumatology Preliminary Diagnostic Criteria for Fibromyalgia and Measurement of Symptom Severity. Arth Care Res 2010;62(5):600-610.
- Goldenberg DL. Comprehensive assessment of fibromyalgia and overlapping conditions. Am J Med 2009;122:S14-S21

Use of biological agents in rheumatic disease

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References

- 1. Tutuncu Z, Kavanaugh A. Anticytokine therapies. Kelley's Textbook of Rheumatology. 7th ed. Elsevier Saunders, 2005:940-950.
- 2. Keystone EC, Strand V. Emerging therapies in rheumatoid arthritis. Kelley's Textbook of Rheumatology. 7th ed. Elsevier Saunders, 2005:951-960.
- 3. Furst DE, Keystone E, Braun J, et al. Updated consensus statement on biological agents for the treatment of rheumatic diseases. Ann Rheum Dis 2011;70(Suppl 1):i2- i36.

Gout - an overview

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References

- 1. Aaron TE. Gout: An update. Am Fam Physician 2007;76(6):801-808.
- 2. Becker MA, Ruoff GE. What do I need to know about gout? J Fam Pract 2010;59 (6): S1-S8.
- 3. Popa-Nita O, Naccache PH. Crystal-induced neutrophil activation. Immunol Cell Biol 2010;88:32-40 (Suppl.).
- Zhang W, Doherty M, Pascual E, et al. EULAR evidence based recommendations for gout. Part I: Diagnosis. Report of a task force of the Standing Committee for International Clinical Studies Including Therapeutics (ESCISIT). Ann Rheum Dis 2006;65:1301-1311.
- 5. Zhang W, Doherty M, Pascual E, et al. EULAR evidence based recommendations for gout. Part II: Management. Report of a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics (ESCISIT). Ann Rheum Dis 2006; 65:1312-1324.
- 6. Hoskison TK, Wortmann RL. Advances in the management of gout and hyperuricaemia. Scand J Rheumatol 2006;35:251-260.
- 7. Pittman JR, Bross MH. Diagnosis and management of gout. Am Fam Physician 1999;59(7):1799-1806.
- 8. Schlesinger N. Dietary factors and hyperuricaemia. Curr Pharm 2005;11:4133-4138.
- 9. Yang LPH. Oral colchicine (Colcrys®) in the treatment and prophylaxis of gout. Drugs 2010;70(12):1603-1613.
- 10. Daskalopoulou SS, Tzovaras V, Mikhailidis DP, Elisaf M. Effect on serum uric acid levels of drugs prescribed for indications other than treating hyperuricaemia. Current Pharmaceutical Design 2005;11:4161-4175.

Lower limb pain syndromes

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- 2. Lloyd RFW, Feeney C. Adolescent hip pain: the needle in the haystack. A case report. Physiotherapy 2011, doi:10.1016/j.physio.2010.11.009.
- 3. Zacher J, Gursche A. "Hip" pain. Best Practice and Research Clinical Rheumatology 2003;7(1):71-85.
- 4. Plante M, Wallace R, BD Busconi. Clinical diagnosis of hip pain. Clin Sports Med 2011;30:225-238.
- 5. Llopis E, Mario P. Anterior knee pain. Eur J Radiol 2007;62:27-43.
- Bálint GP. Foot and ankle disorders. Best Practice and Research Clinical Rheumatology 2003;17(1):87-111.

The lungs in the rheumatic diseases

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- 2. Ante LR, Wyatt JP. Roentgenological and pathological observations in antigenic pneumonitis, its relationship to the collagen diseases. AJR Am J Roentgenol Radium Ther Nucl Med 1951;66:527-545.
- 3. Ooi GC, Ngan H, Peh WC, et al. Systemic lupus erythematosus patients with respiratory symptoms: the value of HRCT: Clin Radiol 1997;52:775-781.
- 4. Bodolay E, Szekanecz Z, Devenyi K, et al. Evaluation of interstitial lung disease in mixed connective tissue disease (MCTD). Rheumatology (Oxford) 2005;44:656-661
- 5. Ryu JH, Bongartz T, Matteson EL. Interstitial lung disease in connective tissue diseases: what are the important questions? Arthritis Rheum 2005;53:488-490.
- 6. Bertolaccini ML, Khamashta MA. Laboratory diagnosis and management challenges in the antiphospholipid syndrome. Lupus 2006;15:172-178.
- 7. Imokawa S, Colby TV, Leslie KO, et al. Methotrexate pneumonitis: review of the literature and histopathological findings in nine patients: Eur Respir J 2000;15:373-