

Deakin Research Online

This is the published version of the abstract:

Youd, J.M., Buchbinder, R.B., Connell, D., Malara, F.M. and Osborne, R.H. 2004, Outcome of patients undergoing vertebroplasty for painful osteoporotic vertebral fractures, *in ARA 2004 : Abstracts presented at the 46th Annual Scientific Meeting of the Australian Rheumatology Association and the Rheumatology Health Professionals Association*, Australian Rheumatology Association, [Unley, S.Aust.], pp. A108-A108.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30025276>

Every reasonable effort has been made to ensure that permission has been obtained for items included in Deakin Research Online. If you believe that your rights have been infringed by this repository, please contact drosupport@deakin.edu.au

Copyright : 2004, Australian Rheumatological Association

THE PREVALENCE AND IMPACT OF ARTHRITIS ON DEPRESSION AND PAIN MEDICATION USE AND ASSOCIATION WITH SELF MANAGEMENT. P.KELLY, T. Gill, A. Taylor, G. Leach. The Arthritis Foundation of SA.

Aims: The aims of this paper are to provide prevalence and projections for arthritis in South Australia and the association with depression, pain medication use and self management.

Method: Annual face to face population health surveys recording self reported arthritis prevalence.

Results: The prevalence of arthritis is increasing in the South Australian population. Self reported surveys have indicated an average prevalence of 23.0% over the past seven years. Females in the older age groups more likely to report having been told by a doctor that they have arthritis. Other demographic factors, which are significantly more likely to be associated with arthritis, are income and education. Using 2003 prevalence estimates it can be seen that there will be approximately a 10% increase in arthritis by the year 2011. This is important for planning purposes and encouraging self management of the condition. Depression is a significant factor associated with chronic disease and therefore depression management is an important part of self management. It has been shown that those with arthritis are significantly more likely to suffer from depression, particularly in the younger age group, perhaps reflecting a greater impact of physically debilitating conditions on younger people whose expectations of their physical abilities are high. This is also supported by the significantly higher use of pain medication in all age groups among those with arthritis.

Conclusion: These results highlight that the self management strategies taught in the Stanford self management courses are appropriate in addressing many of the factors associated with arthritis.

RATE OF CARTILAGE LOSS AT TWO YEARS PREDICTS SUBSEQUENT TOTAL KNEE ARTHROPLASTY: A PROSPECTIVE STUDY. CICCUTTINI, F.M., Jones, G., Forbes, A., Wluka, A.E. Department of Epidemiology and Preventive Medicine, Monash University, Menzies Centre for Population Health Research, Melbourne.

Aim: To determine whether cartilage volume loss is an independent predictor of knee replacement.

Methods: A total of 123 subjects with knee osteoarthritis (OA) were studied. MRI was performed at baseline and two years on their symptomatic knee. Rate of change in tibial cartilage volume was calculated. Subjects were then followed up at year 4 to determine whether they had undergone a knee replacement.

Results: The rate of tibial cartilage loss over two years was an independent predictor of knee replacement at four years. For every 1% increase in rate of tibial cartilage loss there was a 20% increase risk of undergoing a knee replacement at 4 years (95% CI 10% to 30%). Those in the highest tertile of tibial cartilage loss had 7.1 (95%CI 1.4 to 36.5) higher odds of undergoing a knee replacement as compared to the lowest tertile. WOMAC score at baseline, female gender and tibial bone size (but not age and radiographic score) were also predictors of a knee replacement.

Conclusions: These data suggest that therapies targeted at reducing the rate of knee cartilage loss in subjects with symptomatic osteoarthritis may delay knee replacement. This has important implications in terms of prevention and therapeutic interventions in OA.

OUTCOME OF PATIENTS UNDERGOING VERTEBROPLASTY FOR PAINFUL OSTEOPOROTIC VERTEBRAL FRACTURES. YODUM, J.M., Buchbinder R, Connell D, Malara FM, Osborne RH. Monash Department of Clinical Epidemiology at Cabrini Hospital.

Aim: To describe the outcome of patients undergoing vertebroplasty for painful osteoporotic vertebral fracture.

Methods: Consecutive patients undergoing vertebroplasty at Cabrini Hospital between Dec 02 and Nov 03 were followed prospectively for up to 12 months. Outcome was assessed at baseline, 1 week, 1, 3, 6 & 12 months. Data collected included pain (10cm VAS), perceived recovery (5-pt rating scale), osteoporosis-specific quality of life measured by the QUALEFFO (score 0-100, higher score indicates worse quality of life), adverse effects and incidence of new vertebral fractures.

Results: At baseline 20/24 patients consented to follow up: 19 females (95%), mean (SD) age 78.3 (15.2 years), median duration of back pain 4.8 months. Almost half (n = 9, 45%) had a history of previous VF and 6 (30%) had undergone previous vertebroplasty. Mean (SD) pain scores were 8.4 (1.2)(n = 20), 5.4 (2.8)(n = 16), 6.2 (2.7)(n = 17), 5.0 (3.0)(n = 11), 4.4 (3.7)(n = 8) and 6.3 (2.1)(n = 4) at baseline, 1 week, 1, 3, 6 and 12 months respectively. At 1 week, 7 (35%) patients were either moderately or much improved and 13 (65%) reported no change or worsening of symptoms. By 1 month, only 5 patients (25%) reported improvement. Mean (SD) QUALEFFO scores at baseline, 1 week and 1 month were 68.5 (11.5), 61.3 (17.0)(n = 16) and 61.5 (16.3)(n = 17) respectively. There were no immediate clinical complications from the procedure. Five patients (25%) have had 1 or more new symptomatic vertebral fractures.

Conclusions: These results reinforce the need for a randomised controlled trial to assess the efficacy and safety of vertebroplasty.

THE GENETIC CONTRIBUTION AND RELEVANCE OF KNEE CARTILAGE DEFECTS. G. JONES, CH Ding, J Stankovich, F Scott, H Cooley, F Cicuttini. Menzies Research Institute, University of Tasmania, Hobart, Australia; Department of Epidemiology and Preventive Medicine, Monash University Medical School, Melbourne.

Objectives: To describe the differences in knee cartilage defects between offspring of subjects with at least one parent with a total knee replacement for severe primary knee osteoarthritis (OA) and controls, and to estimate the heritability of knee cartilage defects in sib pairs.

Methods: Population-based case control study of 186 matched pairs (mean age 45 years, range 26-61) and sib pair study of 128 subjects from 51 families (115 sib pairs) within the case control study. Knee cartilage defect scores (0-4) and prevalence (a score₂) were assessed at the patellar, medial and lateral tibial and femoral sites by processing images acquired using T1-weighted fat saturated MRI. Heritability was estimated using SOLAR.

Results: The prevalence of knee cartilage defects was surprisingly high (50% scored 2 or more in any compartment). As compared to controls, offspring had higher knee cartilage defect scores and prevalence in tibiofemoral, patellar and total compartments. These became non significant after adjustment for knee pain and radiographic osteoarthritis. Knee cartilage defects had heritability of 38% (P=0.072) and 47% (P=0.082) in tibiofemoral and 52% (P=0.009) and 78% (P=0.025) in patellar compartments for scores and prevalence, respectively which became weaker at the tibiofemoral compartment after adjustment for bone size, knee pain and radiographic osteoarthritis.

Conclusions: Knee cartilage defects are common, have a genetic component that is, in part related to the genetic contribution to knee pain and bone size and, importantly, may have a role in the genetic pathogenesis of knee osteoarthritis.