of joint space narrowing in both knees) (linear regression, $r = 0.315$, $p < 0.05$).

Conclusion We were able to relate serum COMP levels measured at baseline with the new assay to the radiographic progression of knee OA and extend the findings of Conrozier *et al.*³ from hip also to knee OA. At present, serum COMP level cannot be used to prognosticate OA course in individual patients due to high variability and overlap of values but it may help in sorting out groups of patients which are at risk of more aggressive development.

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SAT0068 INTRA-ARTICULAR Hylan GF20 (SYNVISC) IN THE MANAGEMENT OF PATELLOFEMORAL OSTEOARTHRITIS OF THE KNEE (POAK)

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Background Anterior knee pain and patellofemoral osteoarthritis of the knee (POAK) are disabling and often difficult to manage. Intra-articular (IA) hyaluronate reduces pain in patients with tibiofemoral disease but its effect in POAK has not been studied prospectively.

Objectives To make a preliminary assessment of the potential effect of IA Hylan GF20 (Synvisc) on patients with isolated POAK.

Methods Out Patients aged more than 35 years with anterior knee pain and predominant POAK on plain radiographs, MRI or arthroscopy were recruited to an uncontrolled, prospective pilot study. Patients with significant tibiofemoral disease were excluded. Patients received 2 ml of IA Hylan GF20 on 3 successive weeks. The primary outcome was change in the patients' global assessment of their disease on a 100 mm visual analogue scale (VAS). Secondary outcome included WOMAC, and Oxford Outcome Score. Data were collected at baseline, 5, 12 and 26 weeks.

Results Of the 39 enrolled patients 31 have radiographic (joint space narrowing) POAK and the remainder MRI (6) or arthroscopic (2) evidence of POAK but normal radiographs. The mean (95% CI) age is 56 (3.5) years and BMI 30 (1.9), 22 are women and 28 have currently reached 26 weeks. Mean patients' global assessment was reduced from 64 (7.1) at entry to 47 (10.3), 37 (10.0) and 40 (11.7) at each time point and these changes were significantly different from baseline (paired T-test: $P = 0.001$, 0.00004, 0.006 respectively). 15/28 (54%) cases improved by >20 mm VAS at 26 weeks. Significant changes also occurred in pain on stair climbing (WOMAC Question A2: 77.6, 52.3, 51.3, 50.1) and Oxford Outcome Score (Total Score: 36.1, 32.9, 31.0, 30.9). Adverse knee events followed 16 of 116 injections but only two patients were unable to complete the course of injections.

Conclusion The apparent clinical benefit of Hylan GF20 persists to 26 weeks, beyond that expected of IA glucocorticoids. These positive data on the effect of Hylan GF20 in POAK suggest a randomised controlled trial be performed.

SAT0069 SAPHO SYNDROME

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Background The acronym SAPHO (synovitis, acne, pustulosis, hyperostosis, osteitis) was first introduced by Chamot *et al.* in 1987.¹ The syndrome is characterised by variable bone involvement, with or without concurrent pustular dermatoses. The affected bones include the chest wall (clavicle, sternum, sternoclavicular joints), sacroiliac joints and long bones. Bone changes include hyperostosis, aseptic osteomyelitis and arthritis.

Skin diseases include palmoplantar pustulosis, acne conglobata or acne fulminans and hidradenitis suppurativa.

Objectives To determine the frequency of clinical and bone scintigraphic changes in patients with SAPHO syndrome.

Methods Authors analyse the clinical and radiological findings and outcome of the disease in 6 cases of SAPHO syndrome (3 males, 3 females) between 1997 and 2000 retrospectively.

Results Authors treated 6 cases with SAPHO syndrome between 1997 and 2000 of whom 3 patients suffered from acne fulminans and 3 patients from palmoplantar pustulosis. Acne fulminans was found exclusively in young males (mean age: 20 years) including one patient who suffered from inflammatory bowel disease (ulcerative colitis). Sacroileitis was found in all acne patients, and 2 cases had chest wall arthroostitis and peripheral arthritis also. The joint involvement was preceded by the acneiform eruption. Treatment with isotretinoin was suspected playing a role in the development of joint involvement in 2 cases. All patients with palmoplantar pustulosis were middle-aged women (mean age: 45 years). All of these 3 patients suffered from anterior chest wall involvement and one had peripheral joint symptoms. The diagnosis of SAPHO syndrome based on clinical symptoms, laboratory findings (elevated erythrocyte sedimentation rate, leukocyte count, and C-reactive protein), and the results of the bone scintigraphy. Bone scintigraphy is an important examination which can reveal the early pathologic signs when the X-ray examinations are still negative.

Conclusion Bone scintigraphy is a sensitive examination in the early diagnosis of the SAPHO syndrome. Cases with acne fulminans have more favourable prognosis, whereas cases with palmoplantar pustulosis have a chronic course.

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SAT0070 KNEE OSTEOARTHRITIS (KOA) AND VARICOSE VEINS (VV): A CASE-CONTROL STUDY OF 600 PATIENTS

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Background KOA and VV are two frequent diseases increasing with age, especially in women. Age, sex, BMI, standing position

and heavy works are risk factors of both KOA and VV. The association of the two diseases is variously assessed in the literature: prevalence of VV in KOA patients varies from 18 to 64% and prevalence of KOA in VV patients varies from 12 to 68%. This association is still questionable, as no case-controlled study is available.

Objectives To evaluate the possible association of the two diseases in a case-control study.

Methods Three hundred patients with KOA defined according to the ACR criteria (mean age $\pm$ SD: 66 years $\pm$ 10, 64% women) were age and sex-matched with 300 controls (subjects without any present or past knee pain + normal examination of their knees + normal AP x-rays of their knees on standing extended position: Kellgren-Lawrence stage 0). All classical risk factors were recorded (sports, trauma, heredity, works, meniscectomy, ?). In this epidemiological survey, VV were classified as followed: no VV (V0), simple venous varicosities with dull ache or pressure sensation in the legs which feel heavy after prolonged standing, (V1), or VV with complications (erythema, dermatitis, hyperpigmentation developed along the distal aspect of the leg, or skin ulcers) or which were operated (V2). This grading system was set up assuming that the diagnosis of VV at stage 1 is sometimes questionable, while VV at stage 2 is more accurate.

Results There were 95 and 74 V1 patients and 59 and 43 V2 patients in KOA and control groups respectively (Chi2 = 9.28; $p = 0.0097$). This increase of VV in KOA is also significant in women (chi2 = 9.498; $p = 0.0087$), but not in men ($p = 0.34$). As age, body mass index, hypertension, smoking, sports, carrying heavy loads are confounders in both diseases, a multiple logistic regression was performed. There was a relationship between VV and carrying heavy loads, leading to two separated analyses.

Abstract SAT0070 Table 1

	Varicose Veins	RR of Knee OA	CI 95%	P
Heavy loads (-)	V1	1.10	0.64–1.87	0.72
Heavy loads (-)	V2	1.46	0.79–2.70	0.23
Heavy loads (+)	V1	2.37	1.03–5.45	0.042
Heavy loads (+)	V2	3.58	0.16–11.04	0.027

Conclusion When there is no carrying of heavy loads, the RR of KOA is not significantly increased with the presence of VV, while it is when heavy load carriage is also present.

SAT0071 ROFECOXIB SHOWS CONSISTENT EFFICACY IN OA CLINICAL TRIALS, REGARDLESS OF SPECIFIC PATIENT DEMOGRAPHIC AND DISEASE FACTORS

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Background

Objectives Analyses were performed to demonstrate the generalizability of the efficacy of rofecoxib (MK-0966, VIOXXTM) in patients with different demographic or baseline disease characteristics, or with OA in nonsignal joints or multiple locations.

Methods Data were combined for patients with OA of the knee or hip receiving placebo, 12.5 or 25 mg rofecoxib once daily in three 6-week placebo controlled trials, the only trials to date

using all 3 treatments. Predefined analyses were performed after categorising patients according to baseline demographics (age, gender, height, weight BMI) and baseline disease characteristics (ARA functional class, joint tenderness, joint stiffness, WOMAC functional subscale, unilateral/bilateral joint involvement, number of joint groups involved). Three primary endpoints: Pain Walking on Flat Surface (WOMAC, 0–100 mm VAS), Patient Global Assessment of Response to Therapy (0 to 4 point Likert Scale), and Investigator Global Assessment of Disease Status (0 to 4 point Likert Scale) were analysed. Efficacy treating OA in patients with 1, 2, 3, or 4, joint groups (among interphalangeal/first carpal-metacarpal joint, spine, hip or knee) affected was analysed for four end points, Patient and Investigator Global Assessments of Response to Therapy and of Disease Status (which provided data on overall aspects of OA, regardless of affected joint). Treatment by factor interactions were tested by ANOVA.

Results Data from 1501 patients were included. For patients taking 12.5 or 25 mg rofecoxib, treatment effects were generally consistent across subgroups categorised by demographic factors: age ($p = 0.08$), gender ($p = 0.06$), race ($p = 0.46$), prior therapy ($p = 0.19$), weight ($p = 0.10$), BMI ($p = 0.087$) or disease characteristics: baseline joint tenderness ($p = 0.17$), WOMAC functional subscale ($p = 0.52$) ARA functional class I, II, or III ($p = 0.49$), duration of OA ($p = 0.37$), or primary study joint ($p = 0.27$). Greater efficacy was seen in patients with study joint swelling; however, the difference from those without study joint swelling was not clinically meaningful. No significant interactions were observed among patients with unilateral/bilateral involvement or 1, 2, 3, or 4, joint groups affected.

Conclusion No specific factor predicted treatment effect in this study.

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SAT0072 CELECOXIB DOES NOT AFFECT INDEX JOINT X-RAYS IN OSTEOARTHRITIS (OA) PATIENTS WITH LONG TERM EXPOSURE

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Background Worsening of joint x-rays has been observed with nonsteroidal anti-inflammatory drug (NSAID) use.

Objectives The effect of celecoxib, a specific cyclooxygenase-2 inhibitor, on index joint (knee or hip) x-rays in patients with OA was determined during a long-term safety trial.

Methods X-rays were obtained from all patients prior to entry into a controlled clinical trial, prior to subsequent entry into the long-term safety trial, and at Month 12 or early termination visit of the long-term safety trial. Blinded x-rays were graded on a semiquantitative scale assessing multiple aspects of joint morphology.

Results Overall qualitative interpretation of the individual scores for hip and knee films indicated mild to moderate OA equivalent to an average Kellgren-Lawrence grade of between 2 and 3 at entry to the long-term safety trial. Data from 147 pairs of knee films were analysed prior to and after participation in the long-term safety trial (average duration of treatment, 1 year). Shift table analysis was not significant for any parameters of joint morphology (knee [medial and lateral] joint space narrowing, knee [medial and lateral] spurs, knee [medial and lateral]