solid component) among a cohort of 29,908 women with at least one screening TVU. Incidence was determined among cyst-free women with screening TVU one year later. Complex cysts typically represented an abnormal screening result in PLCO, but the clinical response was left to the woman's individual provider. Thus, one-year natural history could be observed among the select group of those not undergoing surgery (72%).

Results: Prevalence was 2.6%, and incidence was 1.5%. After one year, 25% maintained a complex cyst, while 34% had only a simple cyst, and 41% had no cyst visualized. Independent predictors of prevalent cysts were limited, with the strongest being nulliparity (odds ratio 1.8, 95% confidence interval 1.1-2.8). Ovarian cancer diagnoses were rare, and an increased risk among women with complex cysts was primarily due to cancers detected in workup of the abnormal screening rather than an increase in long term risk.

Conclusion: Complex cysts were not uncommon in older women undergoing TVU. Surgical followup led mostly to benign pathology, and cysts not removed often resolved or lost complexity with time.

P25. Favourable Lifestyle Reduces Risk of Subclinical Atherosclerosis in Early Postmenopausal Chinese Women – A Five-Year Followup Study

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Purpose: Subclinical atherosclerosis (SA) progresses silently over time. This study aimed to investigate the progression of SA and the lifestyle determinants in early postmenopausal Chinese women.

Methods: 518 asymptomatic Chinese women, aged 50-64y and within 10 years menopause, were recruited through random telephone dialing. Lifestyle and dietary variables, clinical assessments and fasting blood samples were obtained at baseline (T1) and 5-year followup (T2). Intimamedia thickness (IMT) was the averages of maximum IMT free of atherosclerotic plaque measured at the near and far walls of 3 sites of the left and right carotid arteries using the HDI 5000 ultrasound scanner.

Atherosclerotic plaque (graded from 0 to 3) was a focal wall thickening of at least 1.5mm. Measurements were made at T1 and T2.

Results: A IMT progression rate of 2.1%/year or 0.015 mm/year was observed. 25% had progression of plaque index score (≥ 1). Besides the traditional risk factors, age and IMT (T1) adjusted analyses showed that women with >median fruit and vegetable intake, and no central obesity (WC <80cm) at both T1 and T2 had significantly lower IMT at T2. Women with improved psychological symptoms (≥ 4 to <4); increased soy protein intake and physical activity index (to $\geq$ median) from T1 to T2 had lower IMT at T2. Central obesity and regular drinking were significant predictors of plaque progression while fruit and vegetable intake was protective.

Conclusion: Favorable lifestyle factors over followup were associated with reduced risk of SA in the study cohort.

P26. Levels of Inflammatory Markers and Quality of Sleep

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Purpose: Alterations in the level of inflammatory markers due to poor or short sleep may increase the risk of adverse health outcomes such as cardiovascular disease.

Methods: C-reactive protein (CRP), interleukin-6 (IL-6), tumor necrosis factor- alpha, fibrinogen, intercellular adhesion molecule 1, and white blood cell count were measured using standardized methods in 387 police officers. Sleep data were collected via The Pittsburgh Sleep Quality Index. Linear regression models and ANCOVA were used to assess the relationship between levels of inflammatory markers and indicators of sleep quality. Reported means were adjusted for age, race, gender, smoking and alcohol.

Results: Mean CRP levels were higher in officers who reported higher sleep latency (2.16mg/l vs. 1.78 mg/l, p= 0.05) and day time dysfunction (2.91 mg/l vs. 1.92 mg/l, p=0.04). Mean IL-6 levels were also higher in officers who reported higher sleep latency (2.15 pg/ml vs. 1.69 pg/ml; p=0.04). Fibrinogen levels were lower in officers with poor overall sleep quality compared to those with good sleep quality (2.90 mg/dl vs. 3.10 mg/dl; p=0.01). No other associations were observed.

Conclusion: Mean levels of CRP and IL-6 were independently associated with sleep latency while fibrinogen was found to be associated with poor overall sleep. Further research examining these relationships prospectively may be warranted.

P27-S. Repeated Measures of C-Reactive Protein and Body Mass Index in Relation to Cardiovascular Disease: The Chances Consortium

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Purpose: CRP and obesity (BMI) have been shown to be related to cardiovascular disease (CVD). However, much of this evidence is based on these being measured once at 'baseline.'

Methods: We examined the relationship between repeated measures of CRP and BMI with total mortality and CVD in three populations aged 50 years and older (Esther, n=8722; Glostrup, n=1759; and Tromsø, n=2447). Cox proportional hazards was used to estimate hazard ratios (HR) and 95% confidence intervals (95%CI), with control for many confounders.

Results: In multivariate models, BMI was inversely associated with mortality [≥ 25-<30 kg/m2 versus referent <25 kg/m2 [Esther, 0.65 (0.51- 0.83); Glostrup, 0.88 (0.75-1.03)]. CRP was positively associated with mortality [highest versus referent quintile [Esther, 2.88 (1.98-4.19); Glostrup, 1.59 (1.25-2.03); Tromsø, 1.53 (1.09-2.15)]. BMI was positively associated with CVD in Tromsø [≥ 30 kg/m2 versus referent, 1.50 (1.13- 2.01)], but an inverse association approached significance in Glostrup in the ≥ 25-<30 and ≥ 30 kg/m2 categories versus referent [0.83 (0.67-1.02) and 0.79 (0.60-1.03)]. CRP was positively associated with CVD [highest versus referent quintile [Esther, 1.61 (1.07-2.42); Glostrup, 1.78 (1.27-2.50); Tromsø, 2.16 (1.45-3.20)].

Conclusion: Overweight was associated with a lower risk of mortality not seen in obese individuals, while CRP was positively associated with both mortality and CVD.

P28. Comorbid Lung Disease in Osteoarthritis

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Purpose: Osteoarthritis (OA) is highly prevalent globally. Multiple symptomatic joint involvement among individuals with OA is common, and suggests systemic factors may be operational. Lung disease is prevalent in OA populations, and is associated with systemic factors. We examine the association between multiple joint involvement and prevalent lung disease.

Methods: Patients with moderate to severe hip and knee OA were recruited from 2010-2012. Questionnaires captured comorbidities (lung disease, heart disease, diabetes, and high blood pressure), symptomatic joints, BMI, smoking status, and demographics. Using logistic regression, we evaluated the association between symptomatic joint count and prevalent lung disease (outcome), adjusting for covariates.

Results: Study sample: 505 knees and 478 hips. Mean age was 64 years, 44% male. Nearly 10% reported lung disease. Mean symptomatic joint count was 4.4 (range: 1-20); almost 40% reported ≥ 5 joints. Individuals reporting lung disease had higher BMI, more previous/current smokers, more comorbidity, and greater joint count vs. those without lung disease. Within BMI categories, lung disease prevalence significantly increased with increasing joint count. Adjusted for covariates, each numerical increase in joint count was associated with a 7% (OR: 1.07, 95% CI: 1.01, 1.14) increased likelihood of reporting lung disease.

Conclusion: 'Generalized' OA may reflect a more systemic OA phenotype, and may be an important marker for future risk of comorbidity, particularly lung disease. Given projected increases in OA prevalence, targeted public/clinical interventions may be warranted in this population.

P29. Implications of Clinical Targets for Diabetes Prevention

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