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| --- | --- |
| (1) | **CAC** was associated with measures of **LV systolic and diastolic function (global longitudinal strain (GLS; rho = 0.270, p = 0.004)), peak LV systolic velocity (rho = -0.259, p = 0.004), and estimate of LV filling pressure (E:E'; rho = 0.286, p = 0.001)**. Multivariate regression confirmed these relationships after adjustment for age, gender, LV ejection fraction, and coronary artery disease. **Valvular calcification** varied linearly with **CAC** (p < 0.05). Both **LV diastolic and systolic functional measures** were significant predictors of mortality, the strongest of which was LV diastolic dysfunction. |
| (2) | Therefore, we think that the observation of Guerin et al. of an independent link between CaCO3 dose and arterial calcifications should make us more cautious about the use of calcitriol rather than about that of CaCO3, the main concern of the nephrologist being to prevent hypercalcaemia and hyperphosphataemia by a continuous adjustment of dialysate calcium, and of CaCO3 dose while maintaining an adequate native vitamin D replete state (3), before using calcitriol |
| (4) | We undertook this study to test the hypothesis that vascular and valvular calcification begins and is often severe long before diabetic renal disease progresses to ESRD.  .  32 nondialyzed individuals with type 2 diabetes mellitus and diabetic renal disease (albumin excretion rate > 30 μg/min) [mean glomerular filtration rate (GFR), were identified and compared with a group of 18 normoalbuminuric diabetics. We used 3:1 matching to identify 95 nondiabetic controls without renal disease, matched for age, gender, ethnicity, and the presence/absence of dyslipidemia, hypertension, and known coronary artery disease (CAD).  .  In the ANCOVA model, in addition to age and the presence of diabetic renal disease, male gender and the presence of hypertension were all independent predictors of a greater severity of coronary artery calcification. |
| (5) | No significant correlation in gender, the cause of ESRD, the iPTH, cholesterol, or triglyceride level, nPCR, PD-Ccr or Kt/V was observed between the slow and rapid progression groups (Table 1). |
| (6)(7)(8) | Difference in gender does not cause alteration in mortality(6)(7), however male gender mostly leads to higher risk for cardiovascular mortality (8). |
| (9) | In the 0-19-year age group there were equal numbers of male and female patients with erosions. Subsequently these occurred more often in men. In patients aged 20 to 59 years the proportion of women with erosions was 2.2% (1/46) and the proportion of men 12.2% (10/82) (P<0.04).  .  Fig 5. Increase of vascular calcification in nine male polycystic haemodialysis patients and 50 controls matched for age and sex. Five patients had up to four years of treatment, dashed line indicating fewer than five patients. Polycystic patients showed consistently less calcification.  .  It now appears that the role of dialysis itself in the pathogenesis of renal bone disease cannot be determined with precision since the proportion of pre-dialysis patients with lesions has not yet been studied in detail. |
| (10) | Bone mass as was assessed by clavicular score was reduced in patients with chronic renal failure compared with control subjects, especially in male patients, and showed the gradual decrease with aging in both sexes.  .  The etiology of decrease of bone mass in male subjects was discussed from the standpoint of decreased gonadal activity. |
| (11) | Male gender, age, time (months) of uraemia, low-density lipoprotein cholesterol, albumin, calcium x phosphorus product, parathyroid hormone, and TC score are important determinants of QT dispersion. |
| (12) | Fetuin-A, a negative acute phase protein that inhibits vascular calcification, has a controversial association with mortality in chronic kidney disease (CKD) patients. Chronic inflammation, which is common in CKD, may promote vascular calcification.  .  Patients with low fetuin-A levels (< median) had higher mortality (Hazard ratio `HR' 2.2; CI 1.4-3.5, P < 0.001), but this association was lost after adjustment for age, gender, comorbidities score, dialysis vintage and inflammation (CRP > median). |
| (13) | Male gender lost its association with VC after logistic regression.  .  The factors associated with VCs were classified into `classic' (age, diabetes, male gender, tobacco use, inflammation, more frequent warfarin treatment and peripheral vascular and cardiac diseases) and `non-traditional' (higher FGF-23 and OPG serum levels, low albumin serum levels and low alfacalcidol and CaCO(3) use). In logistic regression, only age, diabetes and FGF-23 serum levels were associated with VC scores of 2 and 3. The patients with a score of 3 had a higher 1-year mortality rate (RR 2.1; P = 0.01) as compared to patients with a 0 score. |
| (14) | The presence of diabetes mellitus is important in describing the risk of STA calcification in patients with ESRD, whereas age, gender, hypertension, serum calcium, serum phosphate, or serum hemoglobin levels are not. |
| (15) | No significant association was found between AoAC (aortic arch calcification) progression and the baseline clinical parameters, including gender, obesity, hypertension, and dialysis modality. |
| (16)(17) | No significant association was found between OPG level and male sex at time of inclusion (16), but higher serum OPG levels were associated with female gender (17). |
| (18) | No association was found between vascular calcifications and age, gender, calcium-based phosphate binders, vitamin D supplementation, smoking, and lipid control |
| (19) | Cumulative incidence of CAC is greater in male in patients with CKD but without diabetes (OR 27.808, 95% CI 1.625–475.97, p=0.022). However, in patients with CKD and diabetes, where age being the only significant predictor (OR 1.119, 95% CI 1.042–1.202, p=0.002) for CAC evolution, the gender advantage of being female is lost. |
| (20) | Adjusted to gender, in **controls** OPG were higher in women (p=0.03), whereas sRANKL did not differ between man and female. In HD group OPG and sRANKL were higher in women (p=0.04, p=0.02 respectively) whereas OPG/sRANKL ratio was similar in both gender.  **Female patients** compared to healthy women revealed 44% higher OPG concentration (p<10-4) and 46% higher OPG/sRANKL ratio (p=0.004). Comparison of **male patients** and controls revealed 39% higher level of OPG (p= 0.001) and 25% higher OPG/sRANKL ratio (p=0.003) in HD group.  Interestingly, OPG and OPG/ sRANKL ratio positively correlated with age in male HD patients (p=0.001 and p=0.011, respectively). |
| (21–23) | Male gender, in contrary to the fact that fractures are associated with female gender in normal population, precipitates vertebral fractures. The fracture may be associated with vascular calcification in hemodialysis patients. Some studies even shows that vascular calcification is significantly associated with male gender. |
| (24) | Epicardial adipose tissue (EAT) is correlated with, while not independent of other risk factors, atherosclerosis, arterial stiffness and the presence of CAC. Although CAC is normally correlated with male gender, EAT is associated with female gender. |
| (25) | Older age (P < .0001), male sex (P = .006), lower estimated glomerular rate (eGFR) (P = .0008), lower bone-specific alkaline phosphatase (P = .03), and the absence of AC (P = .006) were identified as independent determinants of higher serum sclerostin levels. Sclerostin is associated with bone turnover due to its activity on osteoblast. |
| (26) | In univariate logistic regression analyses, age, DM and CVD were associated with VC in all patients. Male gender, smoking, dialysis vintage and increased serum calcium were associated with VC in KT recipients. However the association of male gender and VC were lost in multivariate regression. |
| (27) | In multivariate analysis, age, male gender, nonfasting glucose and Gr. 3 AAC independently correlated with cardiovascular mortality. Did not mention the effects of gender difference on vascular calcification. |
| (28) | Multivariate analyses revealed that age 70 years, **male gender**, hypertension, and current smoking status were significantly associated with the moderate to severe CKD (data not shown). The same study revealed that CKD vs. non-CKD has higher multivariate odds ratio (M-OR) of the arterial location-specific calcification for hypertension (HT). Although indirectly, male gender is associated with calcification in CKD patients. |
| (29) | High sclerostin levels were associated with **male** gender, increased age and BMI, diabetes, hypertension, an history of CHD, decreased levels of eGFR, HDL cholesterol and 1,25(OH)2 vitamin D, increased levels of OPG and **CAC** (P < 0.05 for all these comparisons).  .  **Presence of CAC** (score ≥100) was significantly associated with age (P < 0.0001), **male gender** (P < 0.0001), diabetes (P < 0.0001), body mass index (BMI) (P = 0.02) and smoking habits (P = 0.0012).  .  High sclerostin concentrations were reported to be associated  with aortic calcifications, abnormal intima-media thickness  and carotid plaques in type 2 diabetes males |
| (30) | Gender has no significant association with blood access flow (Qa), thus no power for the detection of stenosis. |
| (31) | While both on warfarin treatment, male hemodialysis patients had more vertebral fractures (77.8 vs. 57.7%, p<0.04), but not females (42.1% vs. 48.4%, p=0.6). |
| (32) | Multivariable regression showed that male gender significantly associated with medial vascular calcification but not CAC score > 100 AU |
| (33) | Univariate Spearman's Rho correlations of mVBD (vertebral bone density) with male gender was significant and negative [-0.11, p<0.05]. However, male gender was not a predictor of low tertile VBD based on output from GENMOD regression analysis in 231 ESRD patients. |
| (34) | Age (OR 1.04/year, 95 % CI 1.01–1.07) and male gender (OR 1.76, 95 % CI 1.07–2.90) predicted vertebral fractures. However the author did not mention the relation of gender with vascular calcification. |
| (35) | Factors related to VFx differed by gender; in males, age (OR 1.04; 95% CI 1.01-1.06) and CsA (cyclosporine A) treatment (OR: 3.2; 95% CI: 1.6-6.3); in females, age (OR 1.07; 95% CI: 1.03-1.12) and PTH levels (OR per 100 pg/ml increase: 1.27; 95% CI: 1.043-1.542).  .  **No significant differences** were found in age, **gender**, time after transplantation, or mineral metabolism parameters between the recipients **with or without a valid assessment of vertebral deformities or aortic calcification**, with the exception of 25OHD3 levels which were slightly higher in those with a valid assessment of vertebral deformity (18.2 ± 9.9 and 21.8 ± 13.3ng/ml; p = 0.04). |
| (36) | A majority of calciphylaxis cases are females and indeed female gender has been cited as a risk factor for this disease. Our results showed that males had a more favorable outcome provided they received at least twenty hyperbaric oxygen treatment (HBOT). (not in CKD patients) |
| (37) | Binary logistic regression analysis demonstrated that male gender, presence of diabetes mellitus and longer duration of AVF before calcification determination were associated with calcification of AVF-blood vessels. Calcification of AVF-blood vessels was predictive of **AVF failure** with a hazard ratio of 3.42. |
| (38) | Radial artery sclerostin expression was not significantly associated with male gender. |
| (39) | PAC was better than AAC in predicting mortality in CKD, HD and KT patients. |
| (40) | The calcimimetic agent cinacalcet is effective for the management of secondary hyperparathyroidism (SHPT) in dialysis patients. |
| (41,42) | In a multivariable analysis age (p<0.001), **female gender** (p<0.001), lower albumin (p=0.02) and a higher VC score (p<0.001) were independently associated with increased **risk of fracture**, while active vitamin D therapy (p=0.03) was associated with a decreased risk. A significantly higher risk of incident fracture was also associated with higher values of bone-specific alkaline phosphatase (**bAP**) (p=0.01) and intact parathyroid hormone (**iPTH**) levels **either< 300 pg/mL (p=0.02) or> 800 pg/mL (p<0.001)** compared with 300-800 pg/mL. |
| (43) | **Calcium phosphate** content was associated directly with eGFR, inversely with age, and was higher among **females**. After adjustments for age and gender, calcium phosphate was significantly associated with **AAC** (aortic calcification). (not in CKD patients) |
| (44) | Increasing tertiles of serum **OPG** (osteoprotegerin) levels were significantly associated with greater height (p = 0.011), **male** gender (p = 0.008), higher cfPWV values (p = 0.020), and lower intact parathyroid hormone (iPTH, p = 0.049) levels.  \*\* in male, PTH may not be of most importance in developing vascular calcification. |
| (45) | A binary logistic regression analysis revealed that **age was the only statistically significant independent predictor of AAC**. . In patients with AAC, **male** gender (B = 0.413, p = 0.030), aortic diastolic blood pressure (B = -0.025, p = 0.001) and ankle-brachial index (B = -1.666, p = 0.002) were independently associated with **AACV (abdominal aortic calcification volume)** using a multiple linear regression analysis. . AACV was not associated with rate of decline in GFR. |
| (46) | Single logistic regression analysis revealed significant correlations between cardiovascular complications in ESRD and advanced age (660 years, p = 0.0179), diabetes (p = 0.0343), and hypoparathyroidism (iPTH  < 60 pg/ml, p = 0.0408), but **not between cardiovascular complications and male gender**, diabetes as an etiological basis of ESRD, hypertension, hyperlipidemia, smoking history, obesity (body mass index 26.4), duration of dialysis therapy, corrected calcium level, Ca x P product, or vitamin D3 analog use. Multiple logistic regression analysis using the above-mentioned variables confirmed that hypoparathyroidism and diabetes are causative risk factors for cardiovascular complications in dialyzed ESRD patients (table 2). |
| (47) | Multivariable Cox regression analysis showed that **cardiac valve calcification was predictive of an increased all-cause mortality** (hazard ratio [HR], 2.50; 95% CI, 1.32 to 4.76; P = 0.005) and cardiovascular death (HR 5.39; 95% CI, 2.16 to 13.48; P = 0.0003) **independent of** age, **male gender**, dialysis duration, C-reactive protein, diabetes, and  atherosclerotic vascular disease.   * 重要排除 male gender 在 cardiac valve calcification 與 all-cause mortality 之間的關係，並非 confounder。 |
| (48)(49) | 比較vitamin D  49: female > vitamin D deficiency > calcification |
| (50)(45) | Sclerostin ?-> ↓calcification |

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