P1109

Prevalence of underlying gastro-intestinal malignancies in iron deficient heart failure.

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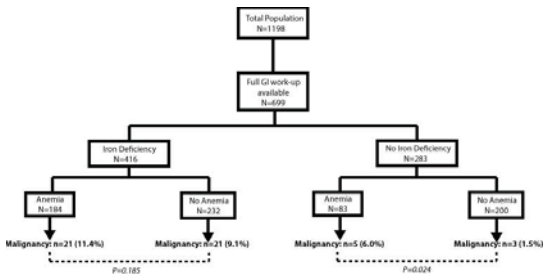
Background: Anemia and iron deficiency (ferritin < 100µg/l or 100-300µg/l with transferrin saturation < 20%) is prevalent in heart failure. Mechanistically, iron deficiency is linked to poor intestinal uptake, increased intestinal loss and chronic inflammation. However, the prevalence of underlying gastro-intestinal malignancies are not established in iron deficient heart failure with or without anemia.
Methods: Patients followed in a single-center, heart failure database with baseline registration of hemoglobin and iron-status were retrospectively evaluated. The proportion of patients undergoing upper and lower gastro-intestinal endoscopy between inclusion and censoring was determined. Afterwards the prevalence of biopsy confirmed intestinal malignancies in relation to baseline iron and hemoglobin status was determined. Anemia was defined according to WHO-criteria (hemoglobin < 12g/dl in females or < 13g/dl in males) and iron deficiency according to aforementioned criteria.
Results: Of the 1197 patients in the database, 699 (59%) patients underwent full endoscopic work-up over a mean follow-up of 50 ± 27 months. A total of 50 intestinal malignancies were identified (n = 42 [84%] in iron deficient vs n = 8 [16%] in non-iron deficient patients; p < 0.001). The prevalence of intestinal malignancies was highest in patients with iron deficient anemia (n = 21/184, 11%), however was not statically different from patients with iron deficiency without anemia (n = 21/232, 9%; p = 0.185). The prevalence was much lower in patients without iron deficiency, with (n = 5/83, 6%) or without anemia (n = 3/200, 1.5%). In patients with iron deficiency but without anemia (a group in which the role of endoscopic work-up is less established), a ferritin above 100 µg/L had a negative predictive value of 98.4% of excluding an underlying gastro-intestinal malignancies.
Conclusions: Endoscopic evaluation is warranted in heart failure patients with iron deficient anemia given the high prevalence of underlying intestinal malignancies. In patients with iron deficiency without anemia, an endoscopic workup might be reserved for patients with a ferritin bellow 100 µg/l, as a ferritin above this value carries a high negative predictive value to exclude the contribution of an underlying intestinal malignancy to the state of iron deficiency.



P1110

Hypovitaminozis d is related with inflammatory parameters in patients with heart failure

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Introduction: Hypovitaminosis D has been observed to be highly prevalent in HF patients. Some data suggest that vitamin D deficiency is associated with the progression of HF and may be an independent predictor of mortality in patients with HF. Low vitamin D levels may contribute to the pro-inflammatory status present in HF, and may therefore play an important role in the development and progression of HF. Neutrophil lymphocyte ratio (NLR) is an accepted marker reflecting inflammatory status of body. In this study, we investigated the relationship between the level of vitamin D and NLR in patients with HF.
Methods: This is a single center observational study included the consecutive 57 HF patients (HFpEF, HFmrEF, HFrEF). Patients were divided into two groups according to vitamin D levels as < 20 ng/ml and = 20 ng/ml.
Results: The mean vitamin D level was 19.1 ± 12.4 ng/mL. There was no significant difference between HF types in terms of vitamin D levels (p = 0.53). Similarly, compared patients with lower and normal vitamin D levels, the properties of patients were similar (Table 1). Patients with lower vitamin D levels had significantly higher NLR and CRP value (Table 1). Vitamin D levels were significantly negative correlated with NLR levels (Figure 1).

Table 1

	Vitamin D <20 ng/mL (n = 34)	Vitamin D ≥20 ng/mL (n = 23)	p
Age, year	64.5 ± 11.8	65.9 ± 11.7	0.67
Gender, f/m	15/19	8/15	0.43
Presence of			
DM, n/%	18, % 52.9	12, %52.2	0.95
HT, n/%	24, %70.6	15, %65.2	0.66
Non-ischemic etiology	22, %64.7	12, %52.2	0.34
EF, %	33 (17-72)	39 (13-66)	0.94
Hemoglobin, g/dL	11.8 (8-17)	12.9 (7.9-17.2)	0.11
Creatine, mg/dL	1.0 (0.58-5.7)	1.1 (0.56-2.3)	0.59
CRP, mg/dL	8.9 (0.7-111)	4.2 (0.2-43.7)	0.02
proBNP, pg/mL	2518 (32-35000)	903 (3-10318)	0.25
NLR	3.7 (0.22-19)	2.7 (0.24-6.48)	0.03

The demographic and biochemical properties of patients

Conclusion: Hypovitaminosis D is associated with inflammatory status in HF patients. Vitamin D substitution may reduce pro-inflammatory parameters in HF. Further studies are needed to confirm the use of vitamin D for regression of inflammatory parameters in patients with HF.

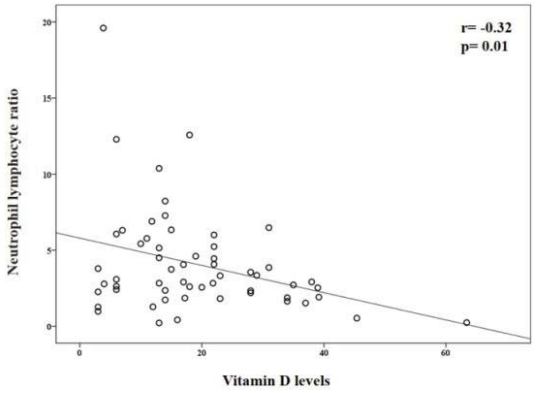

Figure 1

P1111

MIA syndrome - malnutrition, inflammation and atherosclerosis - in acute decompensated heart failure, prognosis and prevalence.

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Introduction: A strong association between malnutrition (M), inflammation (I) and atherosclerosis (A) suggests the presence of MIA syndrome, which is associated with high mortality (D). Cardiovascular disease is already associated with the 3 components (C) of MIA syndrome (MIAs). The concomitant presence of Heart Failure (HF) and MIAs should be a factor of poor prognosis.
Objective: The aim of this study was to evaluate the prevalence and prognosis of MIAs in Acute decompensated HF (ADHF).
Methods: We selected patients (P) admitted in a Cardiology ward by ADHF between 2007 and 2013. Follow-up of 24 months (m). The levels of PCR (< 0.50mg/ dL), albumin (< 3.5g/ dL), and the presence of dyslipidemia served as markers of I, M and A, respectively. The presence of MIAs was validated by the concomitant presence of 3 C (3-MIA), but the additive value of the C were also verified. Division into groups: 3-MIA, two C (2-MIA), one C (1-MIA) and zero C (0-MIA).

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