ANAEMIA OF CHRONIC DISEASE IN GASTROENTEROLOGY OUTPATIENTS – SCAN NOT SCOPE!

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**Introduction** Patients with anaemia of unknown origin are often referred for gastroenterological investigations. This is commonly due to an anaemia of chronic disease (ACD) as a consequence of an underlying inflammatory or neoplastic
process. Referring clinicians are often unfamiliar with the bio-
chemical indices that help distinguish this from iron deficiency
anaemia (IDA) and there can be difficulty in establishing a
cause in mixed IDA and ACD states. Patients are often frail
and unfit for endoscopy. The optimal method for investigat-
ing ACD has not been established. We aimed to study a group
of patients with ACD referred to gastroenterology outpatients
using contrast CT scanning of the chest, abdomen and pelvis
as the primary diagnostic tool.

Methods 53 consecutive patients with ACD referred to gas-
troenterology outpatients between 1/1/09 and 30/6/10 were
identified from a database. All patients met the following cri-
teria: Hb <13 g/dL men and <12 g/dL women, ferritin >30, B12
and folate normal. Patients were assessed clinically by one of
2 clinicians and if deemed fit and had no apparent cause for
the anaemia underwent a contrast CT of chest, abdomen and
pelvis.

Results The mean age was 76 (range 53–93), mean Hb 10.1
(6–12.8), MCV 90.3, ferritin 233 (31–1346). 35 patients under-
going whole body contrast CT scanning. 18 patients did not
undergo CT on the advice of the clinician due to frailty (n = 4),
GFR<60 (n = 7), inflammatory conditions thought to explain
the ACD. Of the 35 CT examinations, 9 (26%) were normal.
8 (23%) revealed benign non-significant pathology (NSP). 12
(34%) patients had a diagnosis of cancer, none of which were
of luminal GI origin (3 renal cell, 3 lung, 1 bladder, 1 adrenal, 1
hepatoma, 1 pancreatic cancer with metastases, 1 prostate can-
cer with metastases, 1 metastases with unknown primary). 6
(17%) patients had significant ‘benign’ findings, for example,
cavitating lung lesion, pulmonary haemorrhage due to vascu-
litis. Comparison of the 17 patients with normal/NSP and the
18 patients with malignancy or significant benign pathology
revealed no significant difference in age (p = 0.5), ferritin (p =
0.1), MCV (p = 0.96), CRP (p = 0.05).

Conclusion The diagnostic yield for whole body contrast CT
in ACD is high with 51% patients having either malignant or
significant benign pathology. One third of those assessed had
malignancy, most of which was non-gastrointestinal in origin.
This compares with an approximate 10% diagnosis of mali-
gnancy in patients presenting with IDA. Haematological causes
were comparatively rare. Serum indices such as Hb, ferritin
and CRP levels could not distinguish between those patients
with normal/benign pathology and those with malignancy/
significant benign disease. Whole body CT should be the pre-
ferred investigation in patients presenting with ACD for which
no obvious cause is evident.

Competing interests None.

Keywords anaemia, CT, endoscopy, malignancy.