Gaps And Challenges Of Iron Deficiency Patient's Journey In The United Arab Emirates (UAE)

Ahmed Jazzar[1]; Amar Lal[2]; Mahamed Tariq Bakri[3]; Mahmoud Marashi[4]; Mazen Taha[2]; Nervana Habashy[5]; Niaz Shaikh[6]; Nicholas Kennedy[7]; Sameer Al-Awadhi[6]; Sunil Bhandari[8]; Wajdi Albonji[9]

[1] Burjeel Day Surgery Center, UAE; [2] Tawam Hospital, UAE; [3] SKMC, UAE; [4] Dubai Hospital, UAE; [5] Medical Manager, Pfizer, Dubai, UAE; [6] Rashid Hospital, UAE; [7] Royal Devon and Exeter Hospital, UK; [8] Hull University Teaching Hospitals, UK; [9] Clemenceau Medical Center

Background

- Iron deficiency (ID) is a common nutritional disorder, often an incidental finding rather than a presenting feature
- It is frequently left untreated until the patient develops severe anemia requiring medical intervention
- Patients with uncertain etiology of iron deficiency anemia (IDA) often move between different specialties. Accordingly, an understanding of patient pathways is critical to optimal care and preventing later adverse outcomes related to severe anemia

Methodology

- A panel discussion of 7 experts-including nephrology, hematology, gastroenterology, and internal medicine was conducted
- An in-depth analysis of the ID patient journey in UAE and different patient profiles seen by different specialties was discussed

Findings

NEPHROLOGY

- Patients will present with chronic kidney disease (CKD), transplant, or multiple co-morbidities
- **Presentation:**
  - **CKD non-dialysis patients** – **ferritin <100ng/mL**
  - **CKD dialysis patients** – **ferritin <200ng/mL**
- High ferritin levels (>100ng/mL), transferrin saturation (TSAT) or C-reactive protein (CRP) levels help ascertain ID diagnosis
- Patients are routinely tested for phosphate levels and monthly follow-up is conducted for patients with end-stage kidney disease (ESKD)

HEMATOLOGY

- Patients present with menorrhagia, with no cause identified in most cases
- Occasionally, a bleeding disorder such as von Willebrand disease, factor VII deficiency or a defect in platelet number or function may be causative

Cut-off ferritin <30ng/mL

- In thalassemia carriers, ID can develop and requires standard iron therapy
- Cases of autoimmune hemolytic anemia in women, may additionally, have an ID as a contributory factor
- Other hematological malignancies are rarely associated with ID, most are transfusion dependent during their therapy
- Some oncology patients, particularly those affecting the GI tract or the genito-urinary tract may develop ID secondary to blood loss associated with the malignancy

Cut-off ferritin <500ng/mL

GASTROENTEROLOGY

- Patients will present with diffuse angiodysplasia, hypovitaminosis, or inflammatory gastrointestinal conditions
- **Presentation:**
  - **Inflammatory conditions**– **ferritin <100ng/mL**
  - **Non-inflammatory conditions**– **ferritin <30ng/mL**
- TSAT, mean corpuscular volume (MCV), and total iron-binding capacity (TIBC) are requested for patients with high ferritin levels
- Periodic follow-up for patients with recurrent gastrointestinal bleeding, angiodysplasia, and inflammatory bowel disease is a prerequisite

INTERNAL MEDICINE

- Patients will present whether inpatient or outpatient including healthy adults, elderly with complications, and patients with multiple comorbidities including acute inflammatory conditions
- **Laboratory Tests performed for diagnosing ID:**
  - **ID due to non-inflammatory conditions**: **CBC, ferritin, and reticulocyte count**
  - **ID due to inflammatory complications**: **CRP, erythrocyte sedimentation rate (ESR), and procalcitonin**
- **TSAT** is requested to **identify absolute vs functional ID**
- Patients, especially geriatrics, are closely followed-up to avoid further complications

Conclusion

- ID has various clinical presentations across different patient profiles, specialties, and diagnostic criteria
- The lack of effective pathways to timely diagnosis, and management poses a challenge to ID. Therefore, a more integrated and unified per-specialty diagnostic algorithm is warranted