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PATHWELtimes

BIMONTHLY NEWSLETTER

PATHWEL CENTER OF HEMATOLOGY
& BONE MARROW TRANSPLANT
A project of Pakistan Thalassaemia Welfare Society

Lt Gen (R) Dr Mustafa Kamal Akbar
11 Feb 1938 - 9 Oct 2024

INSIDE THIS ISSUE

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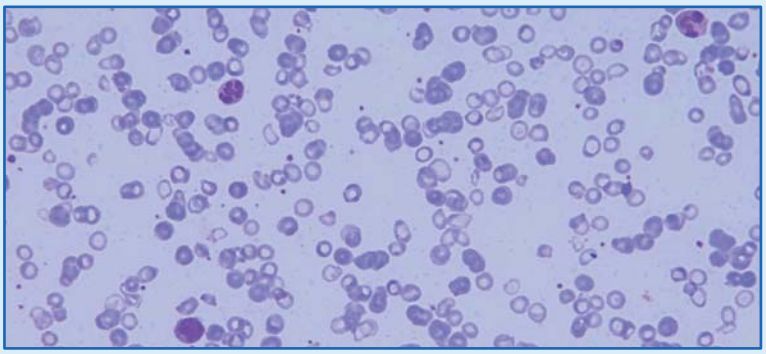
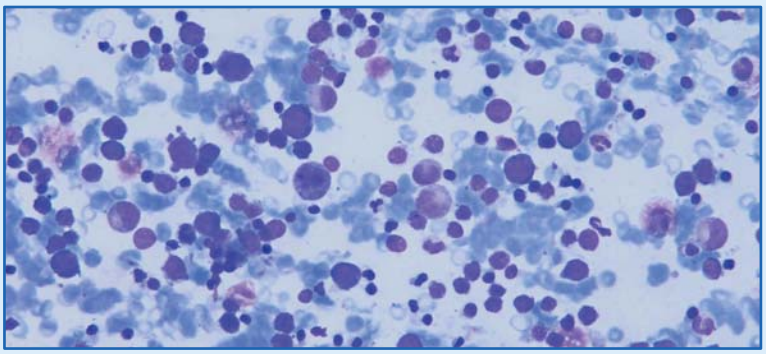
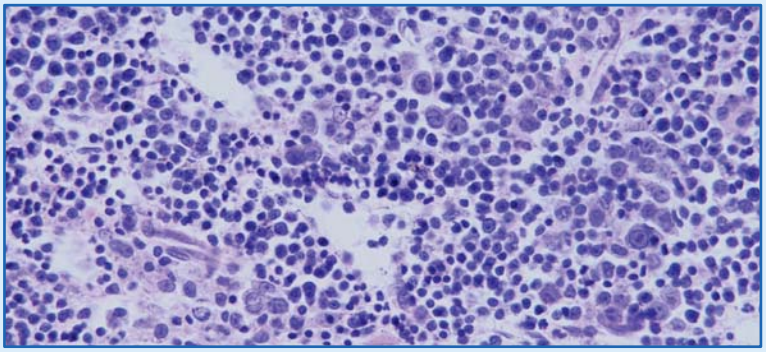
Picture Quiz *by Dr Laila Bahadur*

A 25-year-old patient presented with history of pallor, fatigue, and shortness of breath since the age of 12. Complete blood count revealed hemoglobin level of 7.1 g/dL. On physical examination, he appeared pale, with bilateral anterior cervical lymphadenopathy and splenomegaly measuring 11 cm below the left costal margin.

What is the most likely diagnosis?







Answer on page 15

From Editor's Desk

In the pharmaceutical industry, drug naming often feels like a linguistic challenge. Generic names, derived from chemical structures or pharmacological classifications, are frequently long, complex, and difficult to pronounce. This complexity creates barriers for healthcare providers and patients, hindering communication and understanding. In contrast, trade names are catchy, memorable, and user-friendly, raising the question: Are the generic names deliberately made difficult to pronounce so that communication friendly trade names can replace them and promote sales?

Generic names, such as "Levetiracetam" (anti-epileptic) or "Obinutuzumab" & "Ruxolitinib" (used in blood diseases) are scientifically coined but often challenging to articulate. Trade names like "Lerace" (Levetiracetam) or "Jakavi" (Ruxolitinib) are crafted to be simple and easy to memorize. Difficulty in pronunciation of generic names by healthcare providers lead to patronizing trade names and promoting the brand. Furthermore, these user-friendly names demystify treatments, fostering patient engagement, empowering them to demand specific brands.

This disparity between generic and trade names underscores the need to reform naming conventions. Simplified generic names, while retaining scientific accuracy, could improve communication and understanding. This may not be a welcome step for the pharma industry but would be a step towards promoting generic names and incorporating cheaper alternatives to become more acceptable.

Till next time,

References:

1. International Nonproprietary Names (INN) Program, World Health Organization. (https://www.who.int/activities/international-nonproprietary-names-(inn))

2. FDA Guidance on Drug Naming Practices. (https://www.fda.gov/media/102246/download)

3. Budd, D. & Wolf, R. (2013). "Trade versus generic names in drug development," American Journal of Pharmacy, 170(4), 301-306.

Visit by Punjab Healthcare Commission

On October 29, 2024, the Punjab Healthcare Commission (PHC) team conducted an inspection of PATHWEL as part of the renewal process for its registration. The PHC team commended PATHWEL for its commitment to patient-centered care and noted the high levels of professionalism among the staff. The facility demonstrated commendable hygiene and was compliant with infection control protocols. Additionally, the structured documentation of patient records was recognized as a strength, aiding in efficient patient management.

However, several areas for improvement were identified. The team recommended better resource allocation to address shortages of medical supplies in high-demand areas. They also observed the need for upgrading certain infrastructure components to enhance the overall patient experience. Furthermore, the team suggested conducting regular emergency preparedness drills to ensure staff familiarity with protocols. Establishing a formal patient feedback system was also advised to promote engagement and facilitate continuous improvement.

The overall assessment indicated that while PATHWEL is performing well, addressing these areas will elevate the quality of care further and ensure compliance with PHC standards. The team looks forward to seeing continued progress during future evaluations.

Farewell

"Working with you has been a great experience. Here's to your continued success!"

With mixed emotions, we bid farewell to Dr. Shahzad Nasir, our esteemed consultant hematologist and bone marrow transplant specialist. Dr. Nasir's exceptional skill and compassion have deeply impacted countless patients, earning their trust and admiration. His unwavering dedication to advancing hematology and delivering personalized care has set a high standard in our community.

As he embarks on new adventures, we express our heartfelt gratitude for his remarkable contributions and commitment. Dr. Nasir will always hold a special place in our hearts and team. We wish him every success and happiness in his future endeavors. Thank you, Dr. Nasir, for your invaluable service

As we bid farewell to Dr. Sumaiya, our dedicated young medical officer in charge of the OPD, we celebrate her exceptional contributions to medicine and social work. Dr. Sumaiya has been an invaluable team member, offering outstanding care and unwavering compassion to her patients. Her commitment to community service has inspired us all and positively impacted many lives.

While we will deeply miss her infectious enthusiasm, kindness, and dedication, we are excited for the new chapter she is about to begin. We extend our heartfelt gratitude for her hard work and wish her every success and happiness in the future. Thank you, Dr. Sumaiya, for everything!

Blood Camps' Diary

By Ms Nigar Shah
PRO & Camp Coordinator, PTWS

In September and October we organized number of successful blood collection camps. We are very grateful to all the blood donors and facilitators who helped us in organizing these camps.

Giga Mall DHA Phase II Islamabad | 1 September 2024
The marketing department of Giga Mall arranged a blood donation drive for two consecutive days (Aug 31 and Sep 1, 2024) and provided a Health and Safety Room for our camp activity. Moreover, Giga Mall team voluntarily helped us to motivate people for blood donation.

Allama Iqbal Park Rawalpindi | 6 September 2024
On the occasion of Defence Day, Pathwel held a blood donation and thalassemia awareness camp at a public point of Rawalpindi. Although the donations were less in number but our main objective, to make people aware of importance of preventing thalassemia, was fulfilled.

Safa Gold Mall, Sector F-7, Islamabad
21 September 2024
The marketing department of Safa Gold Mall organized a blood donation camp in the evening of September 21, where a number of employees, tenants and customers donated blood. Common public enthusiastically dropped by our camp to ask about information & prevention of thalassemia.

Askari-XIV Colony, Rawalpindi
15 October 2024
A blood donation camp was arranged in collaboration with secretary general RCC Askari-XIV Col (R) Dr Kamran Mushtaq. It was the first blood camp in any Askari residential colony and many residents participated and donated blood. A large number of blood bags were collected.

Police Lines Headquarter, H-11, Islamabad | 25 September 2024
We are thankful to the Inspector General Islamabad Police for facilitating organization of blood camp at Police Lines Headquarters Islamabad. A number of policemen donated blood for our children. How ever, number of donation were less than our expectation as many of the policemen were not present due to their duties in view of the prevailing law and order situation in the federal capital.

HBS Medical & Dental College, Islamabad | 26 September 2024
Principal Prof. Dr. Muhammad Iqbal Memon, Dr Ashok Kumar, Dr Tariq Nawaz, Brig (R) Dr. Shabeer, and Brig (R) Dr. Waqar visited the camp and appreciated the volunteer donors. President Blood donor Society M. Huzaifa and his whole team enthusiastically and voluntarily cooperated during whole day activity.

Babu Bazar, Saddar, Rawalpindi | 26 September 2024
Pathwel arranged a successful blood donation camp in Babu Bazar, Saddar Rawalpindi in collaboration with Burhani Blood Donor Association. A large number of people enthusiastically donated blood for which we are thankful to the president of Anjuman e Tajiran Babu Bazar and his team.



Foundation University Medical College (FUMC), DHA-1, Islamabad
2 & 3 October 2024
Pathwel arranged two days blood donation activity in FUMC with support of Dr Lubna Zafar who is a President of Hemophilia Welfare Society and a professor of hematology in FUMC. The students of blood donation society actively participated in the activity.

The senior management of FUMC also visited the camp and appreciated the organizing members and volunteer students for participating in a noble cause.

Allama Iqbal Open University (AIOU), Islamabad | 12 & 13 October 2024
Creative Leadership Conference (CLC) was held in Allama Iqbal Open University (AIOU) on October 12 & 13, 2024. Pathwel organized a 2-day blood camp on the occasion. The camp was visited by the Governor KPK Mr. Faisal Kareem Kundi who appreciated the efforts of team Pathwel.

The camp also provided an opportunity to create awareness among the visitors.



Fauji Cement Company Limited (FCCL), Wah
23 October 2024
We arranged a blood donation camp in Fauji Cement Company Limited (Wah) in collaboration with Burhani Blood Donor Association.


Govt Graduate College (Boys), Satellite Town, Rawalpindi
31 October 2024
Pathwel arranged a blood camp in collaboration with Pakistan Sweet Home in Govt Graduate College (Boys) Satellite Town. Principal Dr Ather Qaseem visited the camp and appreciated the team's hard work.

Obituary

A life of generosity, honoring philanthropist and lifelong blood donor

by Dr Zohra J Wazir, Chief Medical Officer Thalassemia Wing

In a world often marked by division, stories of unwavering generosity remind us of the profound humanity we share. On October 9th, at the age of 85, we bid farewell to an extraordinary individual whose legacy endures in the countless lives he touched—Lt. Gen. (R) Dr. Mustafa Kamal Akbar. A dedicated philanthropist and staunch advocate for blood donation, he exemplified compassion and selflessness, dedicating his life to serving others and supporting numerous charitable causes.

Among his most notable contributions was his lifelong commitment to blood donation. For decades, Gen. Kamal made it a personal mission to donate blood consistently. Each donation became a lifeline, aiding critically ill patients, supporting hospitals, and offering hope to those in need. Remarkably, he donated blood over 160 times during his lifetime.

A distinguished eye specialist who was recognized for his professional excellence, Gen. Kamal also served as Director General Medical Services (IS) in the Army Medical Corps. As Vice President of the Pakistan Thalassaemia Welfare Society, he passionately championed the cause for many years. Beyond his personal contributions, he inspired others to join the effort, organizing volunteer campaigns, raising awareness, and accompanying friends and neighbors to their first blood donation. Through lectures at universities.

Even in his final days, Gen. Kamal's unwavering commitment to helping others shone through. Just five days before his passing, he planned to donate a wheelchair for patients in need, making all the necessary arrangements. Though illness prevented him from completing this act, his wife, Brig. Dr. Nadra, ensured his wishes were fulfilled by delivering the wheelchair to the center.

Gen. Kamal's life was a testament to compassion and service, leaving behind a legacy that continues to inspire and uplift generations to come.

September 6th: Celebrating Defence Day in Pakistan

by Dr Zohra J Wazir, Chief Medical Officer Thalassemia Wing

Defence Day, observed annually on September 6th, commemorates the sacrifices made by the Pakistani Armed Forces during the 1965 war. This day honors the bravery and resilience of those who defended the nation. On this occasion we organized an event in our Thalassemia ward. The program featured enthusiastic participation from children with thalassemia, who performed tableaus and delivered inspiring speeches before an engaged audience. Their energy and passion added a vibrant spirit to the day's proceedings.

The event was graced by distinguished guests, including Mr. Rizwan Ahmed - President, Al-Khadmat Foundation (AKF) Punjab North, Mr. Hamid Ather - President, AKF Islamabad, and Mr. Sajjad Ahmed Abbasi - Ameer, Circle Bakot. The event was also attended by senior consultants, doctors and other staff of PATHWEL. It was a meaningful tribute, fostering a sense of pride and unity while highlighting the talents and determination of these young children. It served as a reminder of the strength and resilience that underpin Pakistan's national spirit.

PATHWEL Stars

A Case of Chronic Myeloid Leukemia

By Dr. Khalil ur Rehman,
Clinical Hematologist and BMT specialist, PATHWEL

Saqib Abbasi, a 38-year-old former salesman from the UAE, presented in September 2016 with abdominal distension and heaviness in the left hypochondrium. Examination revealed massive splenomegaly, and laboratory workup revealed chronic-phase Chronic Myeloid Leukemia (CML). Philadelphia chromosome and BCR-ABL1 PCR were positive.

Treatment began with Imatinib in October 2016, but a suboptimal response led to a switch to Nilotinib in May 2017. Despite continuation, Saqib failed to achieve an optimal molecular response (BCR-ABL: 28% in December 2017, 44% in May 2018). He discontinued treatment from January 2019 to February 2020.

Mutation analysis in 2020 showed E255K mutation resistant to Nilotinib but sensitive to Dasatinib. Financial constraints delayed Dasatinib initiation. In February 2022, Saqib returned to Pakistan. Bone marrow analysis confirmed chronic-phase CML, and Dasatinib was started. However, the response was inadequate (BCR-ABL: 38% after seven months). Treatment switched to Asciminib in September 2022, which also failed (BCR-ABL: 74% in June 2023). Resistant to four lines of TKIs, an allogeneic bone marrow transplant (allo-BMT) was planned.

Saqib was fully HLA-matched with his brother, Mohammad Ali. He was admitted on 16 June 2023 for myeloablative conditioning and underwent transplant on 27 June 2023 using peripheral blood stem cells. GVHD prophylaxis included cyclosporine, later switched to Tacrolimus. Neutrophil and platelet engraftment occurred on days +12 and +16, respectively.

Post-transplant complications included transient febrile neutropenia, hyperbilirubinemia, and hematuria. The patient was discharged on day +16. He was readmitted twice: on day +104 for CMV reactivation, diarrhea, and cytopenia, managed with valganciclovir, antibiotics, erythropoietin, and eltrombopag; and on day +204 for cough and dyspnea, treated as PCP.

Seventeen months post-transplant, Saqib has achieved full donor chimerism and a BCR-ABL response of >MR4.5. Although he maintains stable blood counts and has a reasonable quality of life, mild skin and mucosal GVHD persist. He has not yet resumed work.

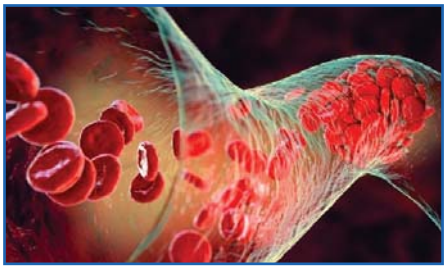
From Thalassemia with Love: Blossoming Flowers

Contributed by Dr Zohra J Wazir, Chief Medical Officer Thalassemia Wing

Tidbits Tidbits Tidbits Tidbits Tidbits Tidbits Tidbits

Higher Ambient Levels of Air Pollutants Linked to Increased VTE Risk

Pamela L. Lutsey, Jeffrey R. Misialek, Michael T. Young et al; blood; https://doi.org/10.1182/blood.2024026399

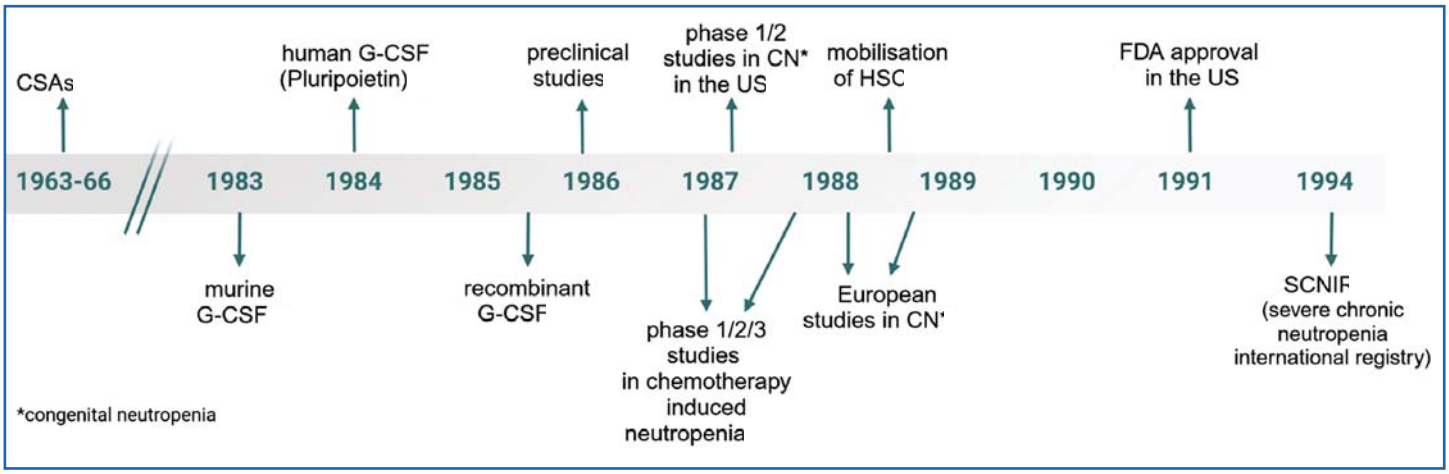


Pamela Lutsey, Ph.D., M.P.H., from the University of Minnesota in Minneapolis, and colleagues examined whether air pollution is associated with increased VTE risk in 6,651 participants from the prospective Multi-Ethnic Study of Atherosclerosis, recruited in 2000 to 2002. Participant-level chronic exposure to fine particulate matter ≤2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), oxides of nitrogen (NO_x), nitrogen dioxide (NO_2), and ozone (O_3) was estimated by averaging these indices updated every two weeks over follow-up. Over a median follow-up of 16.7 years, 248 VTE events were accrued. The researchers found that the hazard ratio for incident VTE associated with 3.6 µg/m^3 higher $PM_{2.5}$ was 1.39, 13.3 ppb higher NO_2 was 2.74, and 30 ppb higher NO_x was 2.21, after adjustment for baseline demographics, health behaviors, and body mass index; no association was seen for O_3.

"Chronic exposure to air pollution, as defined by higher concentrations of $PM_{2.5}$, NO_2, and NO_x for up to 18.5 years, was associated with increased risk of developing VTE," the authors write. "This study is the most deeply characterized analysis of pollution & VTE to date that we are aware of, & adds to mounting evidence that air pollution adversely impacts health."

Forty years of human G-CSF: A short history in time

Br J Haematol, Volume: 205, Issue: 4, Pages: 1296-1298, First published: 19 August 2024, DOI: (10.1111/bjh.19713)



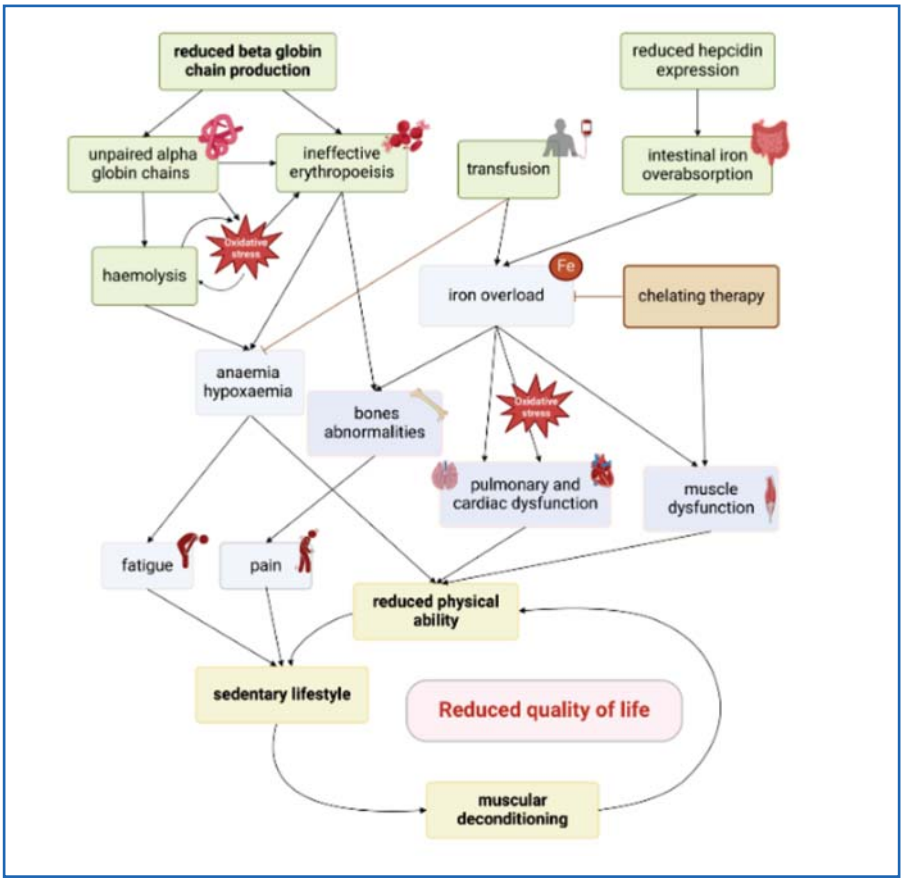
Human granulocyte colony-stimulating factor (G-CSF) was discovered in 1984 at Memorial Sloan-Kettering Cancer Center, New York. This discovery led to the development of recombinant G-CSF by Amgen, Thousand Oaks. By 1987, clinical trials began to explore its benefits for cancer patients undergoing chemotherapy and individuals with congenital neutropenia (CN).

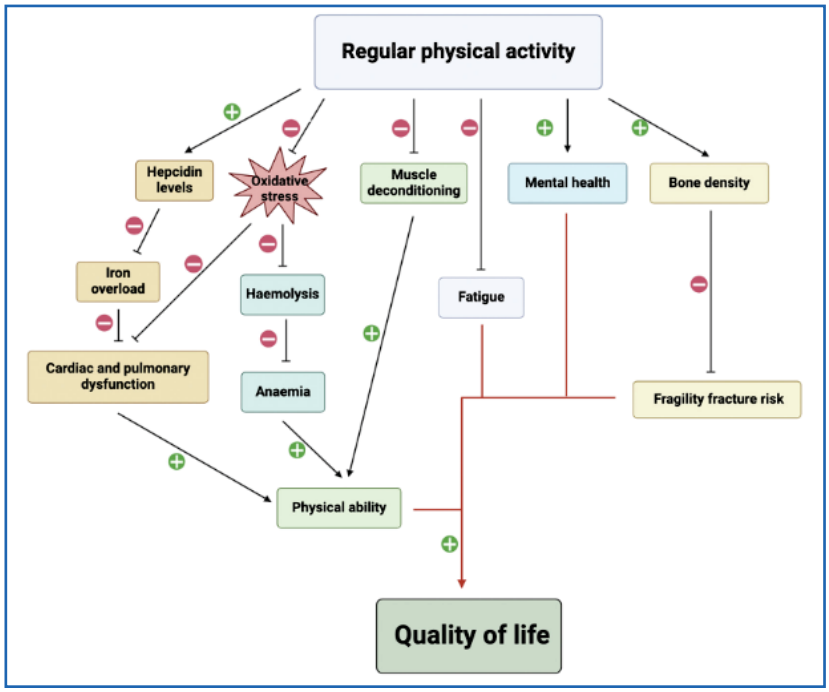
For cancer patients, recombinant G-CSF significantly reduces the duration of chemotherapy-induced neutropenia, a condition of dangerously low neutrophil levels, thereby lowering the risk of infections. In patients with CN, it effectively boosts neutrophil production, addressing a severe deficiency. The introduction of recombinant G-CSF has profoundly improved the quality of life for many cancer patients and has been life-saving for those with CN, showcasing the transformative potential of biotechnology in healthcare.

Tidbits Tidbits Tidbits Tidbits Tidbits Tidbits Tidbits

Impaired physical ability in patients with transfusion-dependent-thalassaemia: Can regular physical activity be a countermeasure? *Mathilde Noguer, et al: BJHaem; DOI: 10.1111/bjh.19847*

Transfusion-dependent β-thalassaemia (TDβT) patients, who often develop iron overload, may expe-rience complications related to the dysfunction of organs,such as the lungs, heart (e.g. arrhythmias), bones (e.g. osteo-paenia) and muscles (e.g. sarcopaenia), all involved in exer-cise capacity and exercise tolerance. Below we describe howeach organ system is uniquely affected by the diseaseHypothetical mechanisms involved in quality of life and physical ability in transfusion-dependent β-thalassaemia. Reduced β-globinchain synthesis leads to the precipitation of excess α chains, which causes both haemolytic anaemia and oxidative stress. Moreover, transfusionand hepcidin deficiency induce iron overload and related organ dysfunction (heart, lungs and bones). These organ dysfunctions and the muscledeconditioning caused by a sedentary lifestyle both contribute to poor physical ability and quality of life.



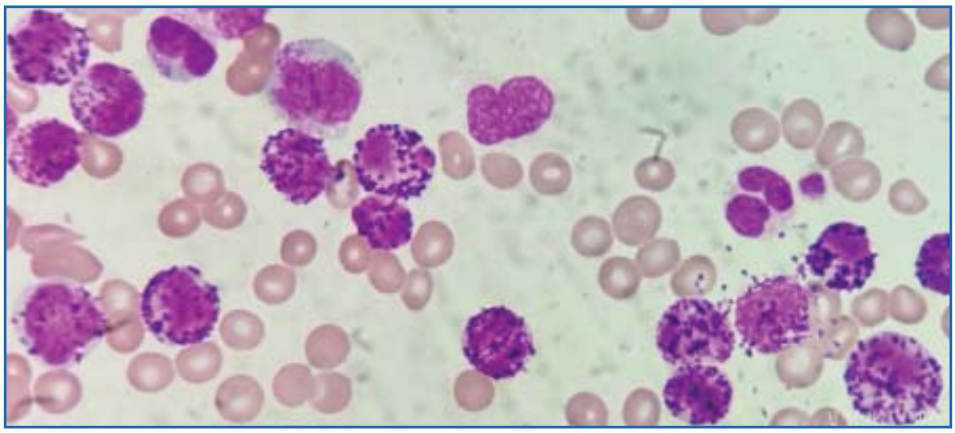


Regular physical exercise has proven benefits in multiple disease states(e.g. diabetes, metabolic syndrome, cancer, cardiac disease and obesity) by increasing physical ability and quality of life and decreasing fatigue, pain and depression. Similar results could be expected in TDβT patients. Regular physical activity may appear as a potential interesting strategy to limit anaemia, iron overload, muscle deconditioning and fragility fracture risk. Exercise may (i) limit iron absorption by increasing hepcidin expression, (ii) decrease oxidative stress damages (haemolysis and cardiac dysfunction), (iii) improve mental health and (iv) increase bone density. All these factors may contribute to improving patients' quality of life by improving either their physical fitness and/or their mental health.

Morphology Updates

Presentation of chronic myeloid leukemia in basophilic blast crisis

Hazarika B, Bain BJ. Am J Hematol. 2024;1-2. doi:10.1002/ajh.27464



A 65-year-old man presented with fatigue. His spleen was just palpable below the left costal margin. His blood count showed hyperleukocyto-sis (WBC 242 x 10^9/L) with blast cells predominating, hemoglobin concentration (Hb) 64g/L,and platelet count 22 10^9/L. Strikingly,the majority of blast cells hadcytoplasm packed with large basophilicgranules; others had more scantygranules so that the typical chromatinpattern of a blast cell was clearlyevident (image,Jenner Giemsa stain x 100 objective). The manual differentialcount showed 74% blast cells, 6% myelocytes, 4% neutrophils, 2%lymphocytes, and 14% mature basophils. Flowcytometric immunophenotyping on the peripheral blood sample showed around 90%weakly CD45+ blast cells, which were positive for CD13, CD33, CD117(weak), CD34, CD38, and CD7 and were negative for CD19, CD20, CD10, cytoplasmic(c) CD79a, CD14, CD64, cCD3, HLA-DR, and cMPO. Reverse transcription polymerase chain reaction (RT-PCR) on the peripheral blood sample showed a b3 a2BCR::ABL1 (p210) transcript. The bone marrow karyotype was 46,XY,t(9;22)(q34;q11.2)[16]//47,XY,idem,+i(17)(q10)[4]. The differential diagnosis at this stage was acute myeloid leukemia (AML) or blast transformation of chronic myeloid leukemia (CML). With financial restraints, treatment was initiated with imatinib and hydroxycarbamide (hydroxyurea). One week later the acute phase of the disease had remitted with the features now being typical of chronic phase CML. The blood count now showed WBC45.18 x 10^9/L, Hb 83g/L, neutrophils 74%, lymphocytes 3%, monocytes 4%, myelocytes 10%, and basophils (all mature) 9%. No blast cells were detected. RT-PCR again showed a b3a2BCR::ABL1 (p210) transcript. Cytogenetic analysis showed persistence of t(9;22), but the isochromosome 17 was no longer present. The reversion to chronic phase disease with persistence of t(9;22) and BCR::ABL1 confirmed a diagnosis of CML presenting in blast crisis rather than AML.

Basophilia with mature and dysplastic basophils is a common phenomenon in CML. However, a basophilic blast crisis is a very rare form of acute transformation. A review of 410 patients with disease in transformation revealed only two cases (0.5%) of basophilic blast crisis. The dominance of basophil blast cells with fewer or no other myeloblasts or lymphoblasts confirms the diagnosis. Clonal evolution is likely to be evident with additional chromosomal abnormalities, often including i(17q) or other abnormality of chromosome 17. Diagnosis is straight forward when a patient is known to have CML but is more problematic if a patient presents already in blast crisis.

REFERENCES:

1. Quintás-Cardama A, Kantarjian H,Cortes J. Basophilic blast phase (B-BP) of chronic myelogenous leukemia(CML). Blood.2007;110:4562.
2. Babiker HM, Proytcheva M. Basophilicblast phase of chronic myelogenousleukemia. Blood. 2014;124:2464.
3. Zhang Y, Kang X, Chen X, Li T. Acute basophilic leukemia arising from chronic myeloid leukemia with isolated thrombocytosis. Turk J Haematol. 2021;38:341-343.
4. Shan P, Dong H, Li S. Acute basophilic leukemia arising from chronic myeloid leukemia with +8, I(17q)(q10) andder (22)t(9;22) after imatinib therapy. JBlood Med. 2023;14:513-517.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest

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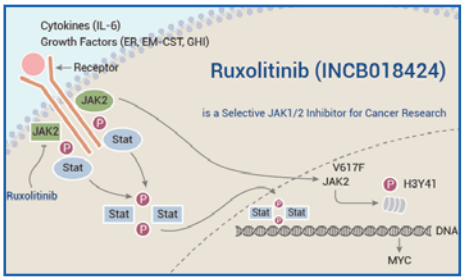
TransplantTidings TransplantTidings TransplantTidings

Impact of cytopenias and early versus late treatment with ruxolitinib in patients with steroid-refractory acute or chronic graft-versus-host disease

Zahra Mahmoudjafari, Valkal Bhatt, John Galvin, et al; Bone Marrow Transplant (2024). https://doi.org/10.1038/s41409-024-02445-6



REACH2 and REACH3 were randomized, multicenter, open-label phase 3 studies comparing the selective Janus kinase (JAK)1/JAK2 inhibitor ruxolitinib versus investigators' choice of best available therapy (BAT) in steroid-refractory (SR) acute (REACH2) or chronic (REACH3) graft-versus-host disease (aGVHD/cGVHD).

Moderate-severe aGVHD/cGVHD can progress rapidly; thus, key clinical considerations driving management of patients with SR-aGVHD/SR-cGVHD are prompt treatment initiation and concomitant cytopenias. These post hoc analyses of REACH2/REACH3 describe the impact of timing of treatment initiation after SR-aGVHD/SR-cGVHD diagnosis and development of concomitant cytopenias on treatment outcomes.

Ruxolitinib initiation within 3 days from SR-aGVHD diagnosis yielded an extended duration of response and higher Day 28 complete response rates compared with initiation ≥7 days after SR-aGVHD diagnosis (median 178 vs 167 days and 36.6% vs 25.0%, respectively). For patients with SR-cGVHD, Week 24 overall response was not impacted by time to treatment (54.5% vs 42.6% for <14 vs >28 days). Clinically relevant cytopenias were manageable, allowing for maintenance of dose intensity (median 20 mg/d), and did not impact the favorable efficacy outcomes from ruxolitinib treatment.

This analysis highlights the practical importance of considering earlier ruxolitinib initiation after SR diagnosis in GVHD and the benefits of ruxolitinib treatment compared with BAT even for patients with cytopenias.

The impact of pre-transplantation diabetes and obesity on acute graft-versus-host disease, relapse and death after allogeneic hematopoietic cell transplantation: a study from the EBMT Transplant Complications Working Party

Lars K Gjærde, Tapani Ruutu, Christophe Peczynski, et al; Bone Marrow Transplant 59, 255–263 (2024). doi.org/10.1038/s41409-023-02154-6

Obesity and diabetes can induce metabolic changes that modulate immune responses and promote a chronic low-grade inflammatory state. In the context of allogeneic hematopoietic cell transplantation (HCT), pre-clinical studies have found that obese mice develop more severe acute GvHD after allogeneic HCT. Likewise, post-transplant hyperglycemia and new-onset post-transplantation diabetes have been shown to increase the risk of acute GvHD.

From the EBMT registry, we included 36,539 adult patients who underwent allogeneic HCT for a hematological malignancy between 2016 and 2020. Of these, 5228 (14%) had obesity (BMI≥30kg/m^2), 1415 (4%) had diabetes (requiring treatment with insulin or oral hypoglycemics), and 688 (2%) had obesity + diabetes pre-transplantation.

Compared with patients without diabetes or obesity, the hazard ratio (HR) of grade II–IV acute GvHD was 1.00 (95% CI 0.94–1.06, p=0.89) for patients with obesity, 0.95 (CI 0.85–1.07, p=0.43) for patients with diabetes, and 0.96 (CI 0.82–1.13, p=0.63) for patients with obesity + diabetes. Non-relapse mortality was higher in patients with obesity (HR 1.08, CI 1.00–1.17, p=0.047), diabetes (HR 1.40, CI 1.24–1.57, p < 0.001), and obesity + diabetes (HR 1.38, CI 1.16–1.64, p < 0.001). Overall survival after grade II–IV acute GvHD was lower in patients with diabetes (HR 1.46, CI 1.25–1.70, p < 0.001).

Pre-transplantation diabetes and obesity did not influence the risk of developing acute GvHD, but pre-transplantation diabetes was associated with poorer survival after acute GvHD.

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Clinical Features of Cutaneous Chronic Graft-Versus-Host Disease According to 2014 NIH Consensus Criteria

	Skin	Nails	Hair
Diagnostic	• Poikiloderma • Lichen sclerosus -like lesions • Lichen planus -like eruption • Morphea -like lesions • Sclerotic features		
Distinctive	• Depigmentation (including vitiligo) • Papulosquamous lesions	• Dystrophy • Longitudinal ridging, splitting, or brittle features • Onycholysis • Pterygium unguis • Nail loss (symmetric, most nails)	• New-onset scarring or nonscarring scalp alopecia • Loss of body hair • Scaling
Other	• Sweat impairment • Ichthyosis • Keratosis pilaris • Hypopigmentation • Hyperpigmentation		• Thinning scalp hair, typically patchy • Coarse or dull hair • Premature gray hair
Common	• Erythema • Maculopapular rash • Pruritus		

Examples of Topical Steroid Formulations for Treatment of Cutaneous Chronic GVHD Depending on the Disease Subtype and Body Sites Involved

Potency*	Indication
High potency • Betamethasone dipropionate 0.05% cream/ointment • Clobetasol propionate 0.05% cream/ointment • Fluocinonide acetonide 0.05% cream/ointment	Superficially sclerotic and nonsclerotic forms of cutaneous cGVHD, involvement of the trunk and extremities
Medium potency • Triamcinolone acetonide 0.1% cream/ointment • Mometasone furoate 0.1% cream • Fluocinonide acetonide 0.025% cream/ointment	Nonsclerotic forms of cutaneous cGVHD, involvement of the trunk and extremities
Low potency • Hydrocortisone 2.5% cream • Fluocinolone acetonide 0.01% cream • Triamcinolone acetonide 0.025% cream	Face, neck, flexural areas, and genitals
For special sites: Scalp • Clobetasol propionate 0.05% lotion/gel/spray • Triamcinolone acetonide 0.1% lotion • Betamethasone valerate 0.05% lotion • Fluocinolone acetonide 0.01% oil	
Nails • Clobetasol nail lacquer • Clobetasol propionate 0.05% ointment	Intralesional steroid injections to the proximal nail fold can also be used
Oral mucosa/mouth • Dexamethasone/clobetasol/budesonide rinses • Clobetasol 0.05% gel/ointment	

Source:
Cutaneous Chronic Graft-Versus-Host Disease: Clinical Manifestations, Diagnosis, Management, and Supportive Care
Connie R. Shi et al;
doi.org/10.1016/j.jtct.2024.05.020

World Federation of Hemophilia (WFH) Delegation Visits Pakistan to Address Challenges in Hemophilia Care

Report by Ms Hina Fatima

A distinguished delegation from the WFH visited Pakistan in late September as part of the WFH PACT initiative in Pakistan. The WFH Path to Access to Care and Treatment (PACT) Program is a transformative 5-year initiative aimed at enhancing the diagnosis and care for individuals with inherited bleeding disorders. By focusing on training, education, fostering partnerships, and implementing in-country initiatives, the program seeks to expand outreach and ensure sustainable access to care. The objective of the visit was to engage with the local healthcare professionals, policymakers, and patient communities on the current challenges, future directions, and improving care for hemophilia patients in Pakistan.

Key Participants

The delegation was led by Rana Saifi, regional manager for the Eastern Mediterranean Region at WFH and included Dr. Emna Gouider, director of Hemophilia Treatment Centres (HTC) in Tunisia and vice president of WFH's National Member Organization (NMO) program. Other notable members were Dawn Rotellini, chairperson of the WFH Women & Girls with Bleeding Disorders (WGBD) committee, Deon York, chief executive of Hemophilia New Zealand, and Connor McCone youth leader of hemophilia in New Zealand.

The visit included a series of seminars and meetings with key stakeholders in hemophilia care in Pakistan. Two major events were held at, where the focus was on the critical need for *multidisciplinary care* in the management of bleeding disorders, particularly hemophilia and Women & Girls with Bleeding Disorder.

Seminar on Optimizing Multidisciplinary Care in Hemophilia

The main seminar, *"Optimizing Multidisciplinary Care in Hemophilia,"* was held at Pakistan Institute of Medical Sciences (PIMS). It was focused on the integration of different healthcare professionals in the management of hemophilia and bleeding disorders. Experts discussed how a holistic, team-based approach involving hematologists, nurses, physiotherapists, psychologists, and social workers is essential to ensure comprehensive care for patients.

Addressing Gender-Specific Challenges

The other important seminar, also held at PIMS, highlighted the unique challenges faced by women and girls living with bleeding disorders, an often-overlooked demographic in hemophilia care. This session focused on the specific hurdles faced by female patients, particularly the social stigma, challenges related to menstruation (period poverty), and the lack of targeted healthcare resources for women with bleeding disorders.

Meeting with Ministry of Health

During their visit, the delegation met with Dr. Shabana Saleem, Director General of the Ministry of Health, who expressed a strong commitment to addressing the challenges faced by hemophilia patients in Pakistan. Dr. Saleem listened attentively to the delegation's concerns and assured them that the government would support efforts to improve access to care, enhance treatment

facilities, and promote awareness campaigns.

National Youth and Women Group Training Workshop

A youth training session was conducted with WFH delegate members to identify key activities crucial for leading a normal life. The session included in-depth discussions on psychosocial challenges, treatment assessment, and various bleeding-related issues faced by individuals with bleeding disorders. A youth group twinning program was also conducted, fostering collaboration and exchange of ideas between groups. This initiative aimed to empower young individuals with bleeding disorders through shared experiences and collective learning.

Furthermore, a National Women's Training Workshop was organized at Rommy Signature Hotel, aimed at empowering women with bleeding disorders. The workshop focused on equipping them with the knowledge and skills to educate others, navigate daily life challenges, and manage bleeding-related issues effectively, enabling them to lead fulfilling lives despite their condition.

The WFH delegation praised Pakistan's progress in raising awareness about bleeding disorders but stressed the importance of expanding access to treatment, improving diagnosis and care protocols, and ensuring sustainable support for hemophilia patients, especially those in remote and underserved regions.

Future Directions and Call to Action

The WFH delegation concluded their visit with a call for enhanced global cooperation, increased funding for bleeding disorder treatment, and greater emphasis on public education and advocacy. Pakistan, with its large population and growing healthcare infrastructure, stands at a critical juncture in the fight for better care for patients with hemophilia and other bleeding disorders.

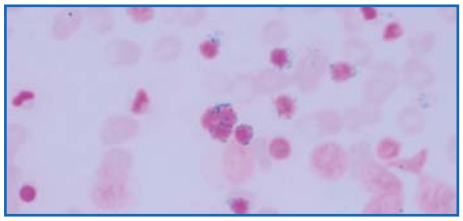
The WFH collaboration with local stakeholders in Pakistan is a testament to the strength of a united global effort in addressing rare conditions like hemophilia. By working together, they not only raise awareness but also improve access to diagnosis, treatment, and comprehensive care. This commitment highlights the importance of collective responsibility, emphasizing that no community should face these challenges alone.

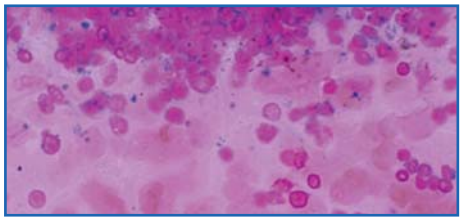
As a result of the delegation's visit, it is expected that Pakistan will strengthen its national policies on bleeding disorders, improve access to treatment, and continue to advocate for better support for patients—particularly women and girls who face unique and compounded challenges.

Picture Quiz Answer

Sideroblastic Anemia *by Dr Laila Bahadur*

Diagnosis of sideroblastic anemia begins with a complete blood count (CBC) showing anemia, often microcytic or normocytic. Peripheral blood smears may reveal hypochromic red cells. Bone marrow aspiration is crucial, demonstrating ringed sideroblasts stained with Prussian blue. Iron studies typically show elevated serum iron and ferritin, with low total iron-binding capacity (TIBC). Identifying the underlying cause involves genetic testing for congenital forms and screening for secondary causes such as lead poisoning, alcoholism, or vitamin B6 deficiency. Additional tests may include evaluation for myelodysplastic syndromes in acquired forms. Comprehensive assessment ensures accurate classification and guides targeted management.





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