Elite Journal of Haematology. Volume 2 issue 3(2024), Pp. 25-41
https://epjournals.com/journals/EJH

P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment

*Emmanuel Ifeanyi Obeagu[1] and Getrude Uzoma Obeagu[2]

[1]Department of Medical Laboratory Science, Kampala International University, Uganda.

[2]School of Nursing Science, Kampala International University, Uganda.

*Corresponding authour: Emmanuel Ifeanyi Obeagu, Department of Medical Laboratory Science, Kampala International University, Uganda, emmanuelobeagu@yahoo.com, ORCID: 0000-0002-4538-0161

Abstract

HIV infection is associated with a heightened risk of coagulopathy, encompassing thrombosis, hemorrhage, and endothelial dysfunction, which significantly impact disease progression and clinical outcomes. P-Selectin, a critical cell adhesion molecule expressed on activated platelets and endothelial cells, plays a pivotal role in mediating leukocyte-endothelial interactions and platelet activation, thus contributing to hemostasis and inflammation. Dysregulation of P-Selectin expression and function in HIV has emerged as a key contributor to coagulopathy, highlighting its potential as a therapeutic target. This review explores the mechanisms underlying P-Selectin dysregulation in HIV-associated coagulopathy, its clinical implications, and potential therapeutic interventions. We discuss the multifactorial nature of P-Selectin dysregulation in HIV, involving viral-induced endothelial activation, immune dysregulation, and antiretroviral therapy-related effects. Overall, understanding the role of P-Selectin in HIV-associated coagulopathy and its potential as a therapeutic target is crucial for optimizing treatment strategies and improving clinical outcomes in this population.

Keywords: *P-Selectin, HIV, coagulopathy, hemostasis, inflammation, treatment, antiretroviral therapy, platelets, endothelial dysfunction.*

Introduction

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

Human immunodeficiency virus (HIV) infection remains a global health challenge, characterized by a myriad of complications that extend beyond its primary immunosuppressive effects. Among these complications, coagulopathy emerges as a significant contributor to morbidity and mortality in HIV-infected individuals. Coagulopathy in HIV encompasses a complex interplay of thrombotic and hemorrhagic phenomena, often resulting from dysregulation of the coagulation cascade and endothelial dysfunction. P-Selectin, a cell adhesion molecule expressed on activated platelets and endothelial cells, has garnered increasing attention for its role in mediating leukocyte-endothelial interactions and platelet activation, key processes involved in hemostasis and inflammation. Dysregulation of P-Selectin expression and function has been implicated in various inflammatory and thrombotic conditions, including cardiovascular disease and sepsis. In the context of HIV infection, dysregulation of P-Selectin represents a potential mechanism contributing to coagulopathy and associated complications.[1-23]

The mechanisms underlying P-Selectin dysregulation in HIV are multifactorial and complex, involving viral-induced endothelial activation, immune dysregulation, and effects of antiretroviral therapy. HIV-mediated immune activation stimulates endothelial cells to express P-Selectin, facilitating leukocyte adhesion and platelet activation. Additionally, certain antiretroviral agents, such as protease inhibitors, have been implicated in exacerbating P-Selectin dysregulation, further perpetuating coagulopathy in HIV-infected individuals. Moreover, chronic inflammation and viral replication contribute to endothelial dysfunction, thrombosis, and hemorrhage, underscoring the intricate relationship between HIV and P-Selectin in coagulopathy. The clinical implications of P-Selectin dysregulation in HIV-associated coagulopathy are significant, encompassing thrombotic and hemorrhagic complications, as well as cardiovascular risk. Elevated levels of soluble P-Selectin serve as biomarkers of endothelial dysfunction and thrombotic risk in HIV-infected individuals, providing insights into disease severity and prognosis. Thrombotic events, such as venous thromboembolism and arterial thrombosis, are prevalent in HIV and contribute to morbidity and mortality in this population. Conversely, hemorrhagic complications, including mucocutaneous bleeding and intracranial hemorrhage, pose significant challenges in managing HIV-associated coagulopathy. Understanding the role of P-Selectin dysregulation in these clinical manifestations is crucial for risk stratification and guiding treatment decisions in HIV-infected individuals.[24-46]

Mechanisms of P-Selectin Dysregulation in HIV-Associated Coagulopathy

The dysregulation of P-Selectin in HIV-associated coagulopathy arises from intricate interplays between viral factors, immune dysregulation, and antiretroviral therapy (ART)-related effects. HIV infection triggers a cascade of immune responses that stimulate endothelial cells to express P-Selectin. The presence of viral particles induces endothelial activation, leading to upregulation of adhesion molecules, including P-Selectin, which facilitates the adhesion of leukocytes and platelets to the endothelium. Additionally, HIV-associated inflammation and immune activation contribute to the release of pro-inflammatory cytokines and chemokines, further promoting P-

Selectin expression on endothelial cells and platelets. Immune dysregulation in HIV infection exacerbates P-Selectin dysregulation through various mechanisms. HIV-induced CD4+ T cell depletion and dysfunction impair immune regulation, leading to sustained inflammation and endothelial activation. Moreover, chronic immune activation upregulates P-Selectin expression via activation of nuclear factor-kappa B (NF-κB) signaling pathways, perpetuating the inflammatory milieu characteristic of HIV-associated coagulopathy. Dysfunctional immune responses, characterized by imbalances in pro-inflammatory and anti-inflammatory cytokines, further contribute to endothelial dysfunction and thrombotic risk in HIV-infected individuals.[46-67]

Antiretroviral therapy (ART) plays a dual role in modulating P-Selectin expression in HIV-associated coagulopathy. While ART effectively suppresses viral replication and reduces immune activation, certain antiretroviral agents may exert direct effects on endothelial cells and platelets, leading to P-Selectin dysregulation. Protease inhibitors, for instance, have been implicated in promoting endothelial dysfunction and platelet activation, thereby exacerbating coagulopathy in HIV-infected individuals. Additionally, ART-related metabolic disturbances, such as dyslipidemia and insulin resistance, may contribute to endothelial dysfunction and thrombotic risk, further exacerbating P-Selectin dysregulation. Endothelial dysfunction, a hallmark feature of HIV-associated coagulopathy, plays a central role in mediating P-Selectin dysregulation. HIV-induced endothelial activation and damage impair endothelial integrity and function, leading to increased expression of adhesion molecules, including P-Selectin. Endothelial dysfunction not only promotes P-Selectin-mediated leukocyte adhesion and platelet activation but also disrupts the balance between pro-coagulant and anticoagulant factors, contributing to a pro-thrombotic state in HIV-infected individuals.[68-87]

Clinical Implications of P-Selectin Dysregulation in HIV-Associated Coagulopathy

The clinical implications of P-Selectin dysregulation in HIV-associated coagulopathy are multifaceted and encompass thrombotic and hemorrhagic complications, as well as cardiovascular risk. Elevated levels of soluble P-Selectin serve as biomarkers of endothelial dysfunction and thrombotic risk in HIV-infected individuals, providing valuable insights into disease severity and prognosis. Thrombotic events, including venous thromboembolism and arterial thrombosis, are prevalent in HIV and contribute significantly to morbidity and mortality in this population. P-Selectin-mediated platelet activation and leukocyte recruitment to the endothelium promote thrombus formation and exacerbate the risk of thrombotic events in HIV-infected individuals. Conversely, hemorrhagic complications, such as mucocutaneous bleeding and intracranial hemorrhage, pose significant challenges in the management of HIV-associated coagulopathy. P-Selectin dysregulation may disrupt the delicate balance between hemostasis and fibrinolysis, leading to increased bleeding tendencies in HIV-infected individuals. Moreover, HIV-related immune dysfunction and endothelial damage further exacerbate hemorrhagic complications, complicating clinical management and increasing the risk of adverse outcomes.[88-108]

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

In addition to thrombotic and hemorrhagic complications, P-Selectin dysregulation in HIV-associated coagulopathy has implications for cardiovascular risk. Endothelial dysfunction, mediated in part by P-Selectin dysregulation, contributes to the development of atherosclerosis and cardiovascular disease in HIV-infected individuals. Elevated levels of soluble P-Selectin are associated with increased cardiovascular risk and adverse cardiovascular events, highlighting the importance of P-Selectin as a biomarker and potential therapeutic target in HIV-associated coagulopathy. Furthermore, P-Selectin dysregulation may impact disease progression and immune dysfunction in HIV-infected individuals. P-Selectin-mediated interactions between activated endothelial cells and leukocytes promote immune cell trafficking and inflammation, contributing to chronic immune activation and HIV pathogenesis. Dysfunctional immune responses, characterized by imbalances in pro-inflammatory and anti-inflammatory cytokines, further exacerbate endothelial dysfunction and thrombotic risk in HIV-associated coagulopathy.[109-128]

Therapeutic Interventions Targeting P-Selectin in HIV-Associated Coagulopathy

Therapeutic interventions targeting P-Selectin in HIV-associated coagulopathy offer promising avenues for mitigating thrombotic and hemorrhagic complications, improving hemostasis, and reducing cardiovascular risk in HIV-infected individuals. These interventions aim to modulate P-Selectin expression and function, thereby attenuating endothelial dysfunction, platelet activation, and leukocyte adhesion, which contribute to the pathogenesis of coagulopathy in HIV. One potential therapeutic approach targeting P-Selectin is the use of P-Selectin inhibitors. These agents interfere with the binding of P-Selectin to its ligands, inhibiting leukocyte adhesion and platelet activation. By blocking P-Selectin-mediated interactions between activated endothelial cells and leukocytes, P-Selectin inhibitors may mitigate inflammation and thrombosis in HIV-infected individuals, thus improving hemostasis and reducing the risk of thrombotic events.[129-140]

Antiplatelet agents represent another therapeutic intervention targeting P-Selectin in HIV-associated coagulopathy. Agents such as aspirin and clopidogrel inhibit platelet activation and aggregation, partly through modulation of P-Selectin expression and function. By inhibiting P-Selectin-mediated platelet activation and thrombus formation, antiplatelet agents may reduce the risk of thrombotic events in HIV-infected individuals, particularly those at increased cardiovascular risk. Furthermore, lifestyle modifications may modulate P-Selectin expression and function, offering complementary therapeutic benefits in HIV-associated coagulopathy. Smoking cessation, regular exercise, and adherence to a healthy diet have been shown to reduce levels of soluble P-Selectin and improve endothelial function in HIV-infected individuals. Lifestyle modifications can also address modifiable risk factors, such as obesity and hypertension, which contribute to endothelial dysfunction and cardiovascular risk in HIV. Optimizing antiretroviral therapy (ART) regimens represents another strategy for mitigating P-Selectin dysregulation and coagulopathy in HIV-infected individuals. Certain antiretroviral agents, such as protease inhibitors, have been implicated in promoting endothelial dysfunction and platelet activation, potentially exacerbating coagulopathy in HIV. Selecting ART regimens with favorable

cardiovascular profiles and minimal effects on endothelial function may help mitigate P-Selectin dysregulation and reduce the risk of thrombotic events in HIV-infected individuals.[141-145]

Conclusion

P-Selectin dysregulation plays a central role in the pathogenesis of HIV-associated coagulopathy, contributing to thrombotic and hemorrhagic complications in this population. Understanding the mechanisms underlying P-Selectin dysregulation and its clinical implications is crucial for guiding treatment strategies and optimizing outcomes in HIV-infected individuals. Targeted therapeutic interventions aimed at modulating P-Selectin expression and function offer promising avenues for mitigating coagulopathy and improving hemostasis in HIV. Further research is needed to validate the efficacy and safety of these therapeutic interventions and to develop personalized treatment approaches for HIV-associated coagulopathy.

References

1. Nath A. Neurologic complications of human immunodeficiency virus infection. Continuum: Lifelong Learning in Neurology. 2015;21(6):1557-1576.
2. Nookala AR, Mitra J, Chaudhari NS, Hegde ML, Kumar A. An overview of human immunodeficiency virus type 1-associated common neurological complications: does aging pose a challenge? Journal of Alzheimer's Disease. 2017;60(s1):S169-S193.
3. Almodovar S. The complexity of HIV persistence and pathogenesis in the lung under antiretroviral therapy: challenges beyond AIDS. Viral immunology. 2014;27(5):186-199.
4. Obeagu EI. An update on susceptibility of individuals to diseases based on ABO blood groups. Int. J. Curr. Res. Med. Sci. 2019;5(3):1-8.
5. Obeagu EI, Babar Q, Vincent CC, Okafor CJ, Eze R, Chijioke UO, Ibekwe AM, Uduchi IO. Pulmonary Embolism in Covid-19 Pandemic: A Threat to Recovery of the Infected Patients. Journal of Pharmaceutical Research International. 2021;33(42A):90-98.
6. Obeagu EI, Obeagu GU. Platelet-Driven Modulation of HIV: Unraveling Interactions and Implications. Journal home page: http://www. journalijiar. com. 2024;12(01).
7. Onuigwe FU, Ambi H, Uchechukwu NJ, Obeagu EI. Platelet Dysfunction in Diabetes Mellitus. Elite Journal of Medicine. 2024;2(2):1-7.
8. Obeagu EI, Obeagu GU. Studies on platlets diagnostic indexes in patients with acute myeloid leukaemia in Uganda. Int. J. Curr. Res. Med. Sci. 2023;9(1):24-27.
9. Obeagu EI, Okechukwu PU, Alum EU, Obeagu GU, Opoku D, Scott GY, Amekpor F. Platelets as actors in inflammation and immunity: A fulcrum in immunity. Int. J. Adv. Res. Biol. Sci. 2023;10(3):81-89.
10. Obeagu EI, Mbabazi A, Obeagu GU, Muhimbura E, Igwe MC, Owunna TA, Okafor CJ, Jakheng SP. Evaluation of Platelets and Some Inflammation Markers of Patients with Acute Myeloid Leukaemia In A Tertiary Hospital In Uganda. Madonna University journal of Medicine and Health Sciences ISSN: 2814-3035. 2022;2(3):78-84.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

11. Obeagu EI, Obeagu GU. Platelet Distribution Width (PDW) as a Prognostic Marker for Anemia Severity in HIV Patients: A Comprehensive Review. Journal home page: http://www. journalijiar. com.;12(01).
12. Ifeanyi OE, Favour AA, Prayer NN. Updates on Human Immunodeficiency Virus and Platelets. Int. J. Adv. Res. Biol. Sci. 2020;7(6):1-7.
13. Obeagu EI, Muhimbura E, Kagenderezo BP, Nakyeyune S, Obeagu GU. An Insight of Interleukin-6 and Fibrinogen: In Regulating the Immune System. J Biomed Sci. 2022;11(10):83.
14. Obeagu EI, Okwuanaso CB, Edoho SH, Obeagu GU. Under-nutrition among HIV-exposed Uninfected Children: A Review of African Perspective. Madonna University journal of Medicine and Health Sciences. 2022;2(3):120-127.
15. Obeagu EI, Alum EU, Obeagu GU. Factors associated with prevalence of HIV among youths: A review of Africa perspective. Madonna University journal of Medicine and Health Sciences. 2023;3(1):13-18. https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/93.
16. Obeagu EI. A Review of Challenges and Coping Strategies Faced by HIV/AIDS Discordant Couples. Madonna University journal of Medicine and Health Sciences. 2023 ;3(1):7-12. https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/91.
17. Obeagu EI, Obeagu GU. An update on premalignant cervical lesions and cervical cancer screening services among HIV positive women. J Pub Health Nutri. 2023; 6 (2). 2023; 141:1-2. links/63e538ed64252375639dd0df/An-update-on-premalignant-cervical-lesions-and-cervical-cancer-screening-services-among-HIV-positive-women.pdf.
18. Ezeoru VC, Enweani IB, Ochiabuto O, Nwachukwu AC, Ogbonna US, Obeagu EI. Prevalence of Malaria with Anaemia and HIV status in women of reproductive age in Onitsha, Nigeria. Journal of Pharmaceutical Research International. 2021;33(4):10-19.
19. Omo-Emmanuel UK, Chinedum OK, Obeagu EI. Evaluation of laboratory logistics management information system in HIV/AIDS comprehensive health facilities in Bayelsa State, Nigeria. Int J Curr Res Med Sci. 2017;3(1): 21-38.DOI: 10.22192/ijcrms.2017.03.01.004
20. Obeagu EI, Obeagu GU, Musiimenta E, Bot YS, Hassan AO. Factors contributing to low utilization of HIV counseling and testing services. Int. J. Curr. Res. Med. Sci. 2023;9(2): 1-5.DOI: 10.22192/ijcrms.2023.09.02.001
21. Obeagu EI, Obeagu GU. An update on survival of people living with HIV in Nigeria. J Pub Health Nutri. 2022; 5 (6). 2022;129. links/645b4bfcf3512f1cc5885784/An-update-on-survival-of-people-living-with-HIV-in-Nigeria.pdf.
22. Offie DC, Obeagu EI, Akueshi C, Njab JE, Ekanem EE, Dike PN, Oguh DN. Facilitators and barriers to retention in HIV care among HIV infected MSM attending Community Health Center Yaba, Lagos Nigeria. Journal of Pharmaceutical Research International. 2021;33(52B):10-19.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

23. Obeagu EI, Ogbonna US, Nwachukwu AC, Ochiabuto O, Enweani IB, Ezeoru VC. Prevalence of Malaria with Anaemia and HIV status in women of reproductive age in Onitsha, Nigeria. Journal of Pharmaceutical Research International. 2021;33(4):10-19.
24. Obeagu EI, Muhimbura E, Kagenderezo BP, Nakyeyune S, Obeagu GU. An Insight of Interleukin-6 and Fibrinogen: In Regulating the Immune System. J Biomed Sci. 2022;11(10):83.
25. Okoroiwu IL, Obeagu EI, Vivian Egwim V. Assessment of White Blood Cell Count and Platelet Count in Women on Hormonal Contraceptives in Owerri, Imo State, Nigeria. J Res Med Dent Sci. 2021;9(12):498-501.
26. Obeagu EI, Okoroiwu IL, Obeagu GU. Relationship between Thrombopoietin and Interleukin 3: A Review. Int J Curr Res Chem Pharm. Sci. 2022;9(1):7-13.
27. Ukonu UC, Nwosu DC, Okoroiwu LI, Dike-Ndudim JN, Ukonu GO, Obeagu EI. Evaluation of Alloantibodies to human platelet antigen and Leucocyte antigen class 1 in Multitransfused patients in Owerri, Imo state. Int. J. Curr. Res. Med. Sci. 2023;9(1):38-44.
28. Obeagu EI. Gestational Thrombocytopaenia. J Gynecol Women's Health. 2023;25(3):556163.
29. Okoroiwu IL, Obeagu EI, Obeagu GU. Determination of clot retraction in preganant women attending antenatal clinic in federal medical centre Owerri, Nigeria. Madonna University Journal of Medicine and Health Sciences. 2022;2(2):91-97.
30. Ezimah AC, Obeagu EI, Asur A, Ezimah UA, Ezimah CO. Absolute platelet count in adult patients with musculoskeletal pain: Current perspectives. Int. J. Curr. Res. Med. Sci. 2016;2(2):30-7.
31. Anyiam AF, Musa Muhibi MA, Iyare G, Omosigho PO, Olaniyan MF, Arinze-Anyiam OC, Oluwafemi E, Obeagu EI. Effects of different Extracts of Phyllantus amarus on selected haematological and haemostatic parameters of Leukemic Wistar Rats. Elite Journal of Medica Science. 2024;2(1):23-43.
32. Okoroiwu IL, Obeagu EI, Anaebo QB, Walter O. Evaluation of activated partial thromboplastin time and prothrombin time in HIV and TB patients in Owerri metropolis. J Pharm Res Int. 2022;21:29-34.
33. Obeagu EI, Ikpenwa JN, Chukwueze CM, Obeagu GU. Evaluation of protein C, protein S and fibrinogen of pregnant women in Owerri Metropolis. Madonna University Journal of Medicine and Health Sciences ISSN: 2814-3035. 2022 Apr 18;2(1):292-8.
34. Oloro OH, Oke TO, Obeagu EI. Evaluation of coagulation profile patients with pulmonary tuberculosis and human immunodeficiency virus in Owo, Ondo state, Nigeria. Madonna University journal of Medicine and Health Sciences ISSN: 2814-3035. 2022 Oct 16;2(3):110-9.
35. Ohale AC, Obeagu EI, Mark HA, Okoli CC, Ezepue CB, Ohanu CE, Okongwu UC, Nlemadim CI, Ekeigwe IB, Okeke OA. The Sub–Acute Effects of Raw Honey on Prothrombin Time, Activated Partial Thromboplastin Time and Platelet Values in Albino Wistar Rats. Journal of Advances in Medicine and Medical Research. 2020 Oct 1;32(17):68-73.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

36. Odo M, Ochei KC, Obeagu EI, Barinaadaa A, Eteng UE, Ikpeme M, Bassey JO, Paul AO. TB Infection Control in TB/HIV Settings in Cross River State, Nigeria: Policy Vs Practice. Journal of Pharmaceutical Research International. 2020;32(22):101-119.
37. Obeagu EI, Eze VU, Alaeboh EA, Ochei KC. Determination of haematocrit level and iron profile study among persons living with HIV in Umuahia, Abia State, Nigeria. J BioInnovation. 2016; 5:464-471. links/592bb4990f7e9b9979a975cf/DETERMINATION-OF-HAEMATOCRIT-LEVEL-AND-IRON-PROFILE-STUDY-AMONG-PERSONS-LIVING-WITH-HIV-IN-UMUAHIA-ABIA-STATE-NIGERIA.pdf.
38. Ifeanyi OE, Obeagu GU. The values of prothrombin time among HIV positive patients in FMC owerri. International Journal of Current Microbiology and Applied Sciences. 2015;4(4):911-916. https://www.academia.edu/download/38320140/Obeagu_Emmanuel_Ifeanyi_and_Obeagu__Getrude_Uzoma2.EMMA1.pdf.
39. Izuchukwu IF, Ozims SJ, Agu GC, Obeagu EI, Onu I, Amah H, Nwosu DC, Nwanjo HU, Edward A, Arunsi MO. Knowledge of preventive measures and management of HIV/AIDS victims among parents in Umuna Orlu community of Imo state Nigeria. Int. J. Adv. Res. Biol. Sci. 2016;3(10): 55-65.DOI; 10.22192/ijarbs.2016.03.10.009
40. Chinedu K, Takim AE, Obeagu EI, Chinazor UD, Eloghosa O, Ojong OE, Odunze U. HIV and TB co-infection among patients who used Directly Observed Treatment Short-course centres in Yenagoa, Nigeria. IOSR J Pharm Biol Sci. 2017;12(4):70-75. links/5988ab6d0f7e9b6c8539f73d/HIV-and-TB-co-infection-among-patients-who-used-Directly-Observed-Treatment-Short-course-centres-in-Yenagoa-Nigeria.pdf
41. Oloro OH, Oke TO, Obeagu EI. Evaluation of Coagulation Profile Patients with Pulmonary Tuberculosis and Human Immunodeficiency Virus in Owo, Ondo State, Nigeria. Madonna University journal of Medicine and Health Sciences. 2022;2(3):110-119.
42. Nwosu DC, Obeagu EI, Nkwocha BC, Nwanna CA, Nwanjo HU, Amadike JN, Elendu HN, Ofoedeme CN, Ozims SJ, Nwankpa P. Change in Lipid Peroxidation Marker (MDA) and Non enzymatic Antioxidants (VIT C & E) in HIV Seropositive Children in an Urban Community of Abia State. Nigeria. J. Bio. Innov. 2016;5(1):24-30. links/5ae735e9a6fdcc5b33eb8d6a/CHANGE-IN-LIPID-PEROXIDATION-MARKER-MDAAND-NON-ENZYMATIC-ANTIOXIDANTS-VIT-C-E-IN-HIV-SEROPOSITIVE-CHILDREN-IN-AN-URBAN-COMMUNITY-OF-ABIA-STATE-NIGERIA.pdf.
43. Igwe CM, Obeagu IE, Ogbuabor OA. Clinical characteristics of people living with HIV/AIDS on ART in 2014 at tertiary health institutions in Enugu, Nigeria. J Pub Health Nutri. 2022; 5 (6). 2022;130. links/645a166f5762c95ac3817d32/Clinical-characteristics-of-people-living-with-HIV-AIDS-on-ART-in-2014-at-tertiary-health-institutions-in-Enugu.pdf.
44. Ifeanyi OE, Obeagu GU, Ijeoma FO, Chioma UI. The values of activated partial thromboplastin time (APTT) among HIV positive patients in FMC Owerri. Int J Curr Res Aca Rev. 2015; 3:139-144.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

https://www.academia.edu/download/38320159/Obeagu_Emmanuel_Ifeanyi3__et_al.IJCRAR.pdf.

45. Obiomah CF, Obeagu EI, Ochei KC, Swem CA, Amachukwu BO. Hematological indices o HIV seropositive subjects in Nnamdi Azikiwe University teaching hospital (NAUTH), Nnewi. Ann Clin Lab Res. 2018;6(1):1-4. links/5aa2bb17a6fdccd544b7526e/Haematological-Indices-of-HIV-Seropositive-Subjects-at-Nnamdi-Azikiwe.pdf
46. Reno TA, Tarnus L, Tracy R, Landay AL, Sereti I, Apetrei C, Pandrea I. The youngbloods. Get together. Hypercoagulation, complement, and NET formation in HIV/SIV pathogenesis. Frontiers in Virology. 2022; 1:795373.
47. Obeagu EI, Ogunnaya FU. Pregnancyinduced Haematological Changes: A Key to Maternal and Child Health. European Journal of Biomedical. 2023;10(8):42-43.
48. Obeagu EI, Chikelu IM, Obarezi TN, Ogbuabor BN, Anaebo QB. Haematological effects of fluted pumpkin (Telfairia occidentalis) leaves in rats. International Journal of Life Sciences Biotechnology and Pharma Research. 2014;3(1):172-182.
49. Alum EU, Ugwu OP, Aja PM, Obeagu EI, Inya JE, Onyeije AP, Agu E, Awuchi CG. Restorative effects of ethanolic leaf extract of Datura stramonium against methotrexate-induced hematological impairments. Cogent Food & Agriculture. 2023;9(1):2258774.
50. Igwe MC, Obeagu EI. Determination of the Effect of Methanol Extract of Tetrapleura Tetraptera Fruit Osmotic Fragility of Erythrocytes, Platelet Aggregation and Phospholipase A2 Activity. Ann. Clin. Lab. Res. 2018; 6:250-255.
51. Obeagu EF, Onyenweaku FC, Nwobodo HA, Ochei KC, Ochiabuto Ogochukwu MT, Onwuasoanya UF. Impact of HIV and hepatitis b virus coinfection on selected haematological markers of the patients in Umuahia, Abia State, Nigeria. Ann Clin Lab Res. 2017;5(2):175.
52. Obeagu EI, Adepoju OJ, Okafor CJ, Obeagu GU, Ibekwe AM, Okpala PU, Agu CC. Assessment of Haematological Changes in Pregnant Women of Ido, Ondo State, Nigeria. J Res Med Dent Sci. 2021;9(4):145-148.
53. Ifeanyi OE, Obeagu GU. The values of prothrombin time among HIV positive patients in FMC owerri. International Journal of Current Microbiology and Applied Sciences. 2015;4(4):911-6.
54. Okorie HM, Obeagu EI, Eze EN, Jeremiah ZA. Assessment of coagulation parameters in malaria infected pregnant women in Imo state, Nigeria. International Journal of Current Research in Medical Sciences. 2018;4(9):41-9.
55. Obeagu EI, Babar Q, Vincent CC, Okafor CJ, Eze R, Chijioke UO, Ibekwe AM, Uduchi IO. Pulmonary Embolism in Covid-19 Pandemic: A Threat to Recovery of the Infected Patients. Journal of Pharmaceutical Research International. 2021 Aug 26;33(42A):90-8.
56. Ifeanyi OE, Obeagu GU, Ijeoma FO, Chioma UI. The values of activated partial thromboplastin time (APTT) among HIV positive patients in FMC Owerri. Int J Curr Res Aca Rev. 2015;3:139-44.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

57. Edward Henry SI, Obeagu EI. Assessment of the Serum Iron Status of Preeclampsia Subjects in Aba, Abia State. Elite Journal of Haematology. 2024;2(1):10-8.
58. Omo-Emmanuel UK, Ochei KC, Osuala EO, Obeagu EI, Onwuasoanya UF. Impact of prevention of mother to child transmission (PMTCT) of HIV on positivity rate in Kafanchan, Nigeria. Int. J. Curr. Res. Med. Sci. 2017;3(2): 28-34.DOI: 10.22192/ijcrms.2017.03.02.005
59. Aizaz M, Abbas FA, Abbas A, Tabassum S, Obeagu EI. Alarming rise in HIV cases in Pakistan: Challenges and future recommendations at hand. Health Science Reports. 2023;6(8):e1450.
60. Obeagu EI, Amekpor F, Scott GY. An update of human immunodeficiency virus infection: Bleeding disorders. J Pub Health Nutri. 2023; 6 (1). 2023;139. links/645b4a6c2edb8e5f094d9bd9/An-update-of-human-immunodeficiency-virus-infection-Bleeding.pdf.
61. Obeagu EI, Scott GY, Amekpor F, Ofodile AC, Edoho SH, Ahamefula C. Prevention of New Cases of Human Immunodeficiency Virus: Pragmatic Approaches of Saving Life in Developing Countries. Madonna University journal of Medicine and Health Sciences. 2022;2(3):128-134. https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/86.
62. Walter O, Anaebo QB, Obeagu EI, Okoroiwu IL. Evaluation of Activated Partial Thromboplastin Time and Prothrombin Time in HIV and TB Patients in Owerri Metropolis. Journal of Pharmaceutical Research International. 2022:29-34.
63. Odo M, Ochei KC, Obeagu EI, Barinaadaa A, Eteng EU, Ikpeme M, Bassey JO, Paul AO. Cascade variabilities in TB case finding among people living with HIV and the use of IPT: assessment in three levels of care in cross River State, Nigeria. Journal of Pharmaceutical Research International. 2020;32(24):9-18.
64. Jakheng SP, Obeagu EI. Seroprevalence of human immunodeficiency virus based on demographic and risk factors among pregnant women attending clinics in Zaria Metropolis, Nigeria. J Pub Health Nutri. 2022; 5 (8). 2022;137. links/6317a6b1acd814437f0ad268/Seroprevalence-of-human-immunodeficiency-virus-based-on-demographic-and-risk-factors-among-pregnant-women-attending-clinics-in-Zaria-Metropolis-Nigeria.pdf.
65. Obeagu EI, Obeagu GU. A Review of knowledge, attitudes and socio-demographic factors associated with non-adherence to antiretroviral therapy among people living with HIV/AIDS. Int. J. Adv. Res. Biol. Sci. 2023;10(9):135-142.DOI: 10.22192/ijarbs.2023.10.09.015 links/6516faa61e2386049de5e828/A-Review-of-knowledge-attitudes-and-socio-demographic-factors-associated-with-non-adherence-to-antiretroviral-therapy-among-people-living-with-HIV-AIDS.pdf
66. Obeagu EI, Onuoha EC. Tuberculosis among HIV Patients: A review of Prevalence and Associated Factors. Int. J. Adv. Res. Biol. Sci. 2023;10(9):128-134.DOI: 10.22192/ijarbs.2023.10.09.014 links/6516f938b0df2f20a2f8b0e0/Tuberculosis-among-HIV-Patients-A-review-of-Prevalence-and-Associated-Factors.pdf.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

67. Obeagu EI, Ibeh NC, Nwobodo HA, Ochei KC, Iwegbulam CP. Haematological indices of malaria patients coinfected with HIV in Umuahia. Int. J. Curr. Res. Med. Sci. 2017;3(5):100-104.DOI: 10.22192/ijcrms.2017.03.05.014 https://www.academia.edu/download/54317126/Haematological_indices_of_malaria_patients_coinfected_with_HIV.pdf
68. Oke OT, Eyitayo EF, Obeagu EI. Inhalation effect of insecticides on some Haematological parameters of rabbits. Int. J. Curr. Res. Chem. Pharm. Sci. 2022;9(9):1-9.
69. Obeagu EI, Obeagu GU, Obiezu J, Ezeonwumelu C, Ogunnaya FU, Ngwoke AO, Emeka-Obi OR, Ugwu OP. Hematologic Support in HIV Patients: Blood Transfusion Strategies and Immunological Considerations. APPLIED SCIENCES (NIJBAS). 2023;3(3).
70. Ifeanyi OE, Obeagu GU. The values of prothrombin time among HIV positive patients in FMC owerri. International Journal of Current Microbiology and Applied Sciences. 2015;4(4):911-6.
71. Offie DC, Ibekwe AM, Agu CC, Esimai BN, Okpala PU, Obeagu EI, Ufelle SA, Ogbonna LN. Fibrinogen and C-Reactive Protein Significance in Children Infected by Plasmodium falciparum Species in Enugu, Enugu State, Nigeria. Journal of Pharmaceutical Research International. 2021;33(15):1-8.
72. Obeagu E, Nwosu D, Obeagu III G. Antithrombin III: A Review. Int. J. Curr. Res. Biol. Med. 2022;7(2):20-27.
73. Jakheng SP, Obeagu EI, Abdullahi IO, Jakheng EW, Chukwueze CM, Eze GC, Essien UC, Madekwe CC, Madekwe CC, Vidya S, Kumar S. Distribution Rate of Chlamydial Infection According to Demographic Factors among Pregnant Women Attending Clinics in Zaria Metropolis, Kaduna State, Nigeria. South Asian Journal of Research in Microbiology. 2022;13(2):26-31.
74. Viola N, Kimono E, Nuruh N, Obeagu EI. Factors Hindering Elimination of Mother to Child Transmission of HIV Service Uptake among HIV Positive Women at Comboni Hospital Kyamuhunga Bushenyi District. Asian Journal of Dental and Health Sciences. 2023;3(2):7-14. http://ajdhs.com/index.php/journal/article/view/39.
75. Okorie HM, Obeagu Emmanuel I, Okpoli Henry CH, Chukwu Stella N. Comparative study of enzyme linked immunosorbent assay (Elisa) and rapid test screening methods on HIV, Hbsag, Hcv and Syphilis among voluntary donors in. Owerri, Nigeria. J Clin Commun Med. 2020;2(3):180-183.DOI: **DOI:** 10.32474/JCCM.2020.02.000137 links/5f344530458515b7291bd95f/Comparative-Study-of-Enzyme-Linked-Immunosorbent-Assay-ElISA-and-Rapid-Test-Screening-Methods-on-HIV-HBsAg-HCV-and-Syphilis-among-Voluntary-Donors-in-Owerri-Nigeria.pdf.
76. Ezugwu UM, Onyenekwe CC, Ukibe NR, Ahaneku JE, Onah CE, Obeagu EI, Emeje PI, Awalu JC, Igbokwe GE. Use of ATP, GTP, ADP and AMP as an Index of Energy Utilization and Storage in HIV Infected Individuals at NAUTH, Nigeria: A Longitudinal, Prospective, Case-Controlled Study. Journal of Pharmaceutical Research International. 2021;33(47A):78-84.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

77. Emannuel G, Martin O, Peter OS, Obeagu EI, Daniel K. Factors Influencing Early Neonatal Adverse Outcomes among Women with HIV with Post Dated Pregnancies Delivering at Kampala International University Teaching Hospital, Uganda. Asian Journal of Pregnancy and Childbirth. 2023 Jul 29;6(1):203-211. http://research.sdpublishers.net/id/eprint/2819/.
78. Igwe MC, Obeagu EI, Ogbuabor AO, Eze GC, Ikpenwa JN, Eze-Steven PE. Socio-Demographic Variables of People Living with HIV/AIDS Initiated on ART in 2014 at Tertiary Health Institution in Enugu State. Asian Journal of Research in Infectious Diseases. 2022;10(4):1-7.
79. Vincent CC, Obeagu EI, Agu IS, Ukeagu NC, Onyekachi-Chigbu AC. Adherence to Antiretroviral Therapy among HIV/AIDS in Federal Medical Centre, Owerri. Journal of Pharmaceutical Research International. 2021;33(57A):360-368.
80. Igwe MC, Obeagu EI, Ogbuabor AO. ANALYSIS OF THE FACTORS AND PREDICTORS OF ADHERENCE TO HEALTHCARE OF PEOPLE LIVING WITH HIV/AIDS IN TERTIARY HEALTH INSTITUTIONS IN ENUGU STATE. Madonna University journal of Medicine and Health Sciences. 2022;2(3):42-57. https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/75.
81. Madekwe CC, Madekwe CC, Obeagu EI. Inequality of monitoring in Human Immunodeficiency Virus, Tuberculosis and Malaria: A Review. Madonna University journal of Medicine and Health Sciences. 2022;2(3):6-15. https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/69
82. Echendu GE, Vincent CC, Ibebuike J, Asodike M, Naze N, Chinedu EP, Ohale B, Obeagu EI. WEIGHTS OF INFANTS BORN TO HIV INFECTED MOTHERS: A PROSPECTIVE COHORT STUDY IN FEDERAL MEDICAL CENTRE, OWERRI, IMO STATE. European Journal of Pharmaceutical and Medical Research, 2023; 10(8): 564-568
83. Nwosu DC, Nwanjo HU, Okolie NJ, Ikeh K, Ajero CM, Dike J, Ojiegbe GC, Oze GO, Obeagu EI, Nnatunanya I, Azuonwu O. BIOCHEMICAL ALTERATIONS IN ADULT HIV PATIENTS ON ANTIRETRQVIRAL THERAPY. World Journal of Pharmacy and Pharmaceutical Sciences, 2015; 4(3): 153-160**.** links/5a4fd0500f7e9bbc10526b38/BIOCHEMICAL-ALTERATIONS-IN-ADULT-HIV-PATIENTS-ON-ANTIRETRQVIRAL-THERAPY.pdf.
84. Obeagu EI, Obeagu GU. Effect of CD4 Counts on Coagulation Parameters among HIV Positive Patients in Federal Medical Centre, Owerri, Nigeria. Int. J. Curr. Res. Biosci. Plant Biol. 2015;2(4):45-49.
85. Obeagu EI, Nwosu DC. Adverse drug reactions in HIV/AIDS patients on highly active antiretro viral therapy: a review of prevalence. Int. J. Curr. Res. Chem. Pharm. Sci. 2019;6(12):45-8.DOI: 10.22192/ijcrcps.2019.06.12.004 links/650aba1582f01628f0335795/Adverse-drug-reactions-in-HIV-AIDS-patients-on-highly-active-antiretro-viral-therapy-a-review-of-prevalence.pdf.
86. Obeagu EI, Scott GY, Amekpor F, Obeagu GU. Implications of CD4/CD8 ratios in Human Immunodeficiency Virus infections. Int. J. Curr. Res. Med. Sci. 2023;9(2):6-13.DOI:

10.22192/ijcrms.2023.09.02.002 links/645a4a462edb8e5f094ad37c/Implications-of-CD4-CD8-ratios-in-Human-Immunodeficiency-Virus-infections.pdf.

87. Obeagu EI, Ochei KC, Okeke EI, Anode AC. Assessment of the level of haemoglobin and erythropoietin in persons living with HIV in Umuahia. Int. J. Curr. Res. Med. Sci. 2016;2(4):29-33. links/5711c47508aeebe07c02496b/Assessment-of-the-level-of-haemoglobin-and-erythropoietin-in-persons-living-with-HIV-in-Umuahia.pdf.
88. Gavins FN, Stokes KY, editors. Vascular responses to pathogens. Academic Press; 2015.
89. Ifeanyi OE, Obeagu GU. The Values of CD4 Count, among HIV Positive Patients in FMC Owerri. Int. J. Curr. Microbiol. App. Sci. 2015;4(4):906-910. https://www.academia.edu/download/38320134/Obeagu_Emmanuel_Ifeanyi_and_Obeagu__Getrude_Uzoma.EMMA2.pdf.
90. Obeagu EI, Okeke EI, Anonde Andrew C. Evaluation of haemoglobin and iron profile study among persons living with HIV in Umuahia, Abia state, Nigeria. Int. J. Curr. Res. Biol. Med. 2016;1(2):1-5.
91. Alum EU, Ugwu OP, Obeagu EI, Okon MB. Curtailing HIV/AIDS Spread: Impact of Religious Leaders. Newport International Journal of Research in Medical Sciences (NIJRMS). 2023;3(2):28-31.
92. Obeagu EI, Obeagu GU, Paul-Chima UO. Stigma Associated With HIV. AIDS: A Review. Newport International Journal of Public Health and Pharmacy (NIJPP). 2023;3(2):64-67.
93. Alum EU, Obeagu EI, Ugwu OP, Aja PM, Okon MB. HIV Infection and Cardiovascular diseases: The obnoxious Duos. Newport International Journal of Research in Medical Sciences (NIJRMS). 2023;3(2):95-99.
94. Ibebuike JE, Nwokike GI, Nwosu DC, Obeagu EI. A Retrospective Study on Human Immune Deficiency Virus among Pregnant Women Attending Antenatal Clinic in Imo State University Teaching Hospital. *International Journal of Medical Science and Dental Research,* 2018; 1 (2):08-14. https://www.ijmsdr.org/published%20paper/li1i2/A%20Retrospective%20Study%20on%20Human%20Immune%20Deficiency%20Virus%20among%20Pregnant%20Women%20Attending%20Antenatal%20Clinic%20in%20Imo%20State%20University%20Teaching%20Hospital.pdf.
95. Obeagu EI, Obarezi TN, Omeh YN, Okoro NK, Eze OB. Assessment of some haematological and biochemical parametrs in HIV patients before receiving treatment in Aba, Abia State, Nigeria. Res J Pharma Biol Chem Sci. 2014; 5:825-830.
96. Obeagu EI, Obarezi TN, Ogbuabor BN, Anaebo QB, Eze GC. Pattern of total white blood cell and differential count values in HIV positive patients receiving treatment in Federal Teaching Hospital Abakaliki, Ebonyi State, Nigeria. International Journal of Life Science, Biotechnology and Pharama Research. 2014; 391:186-189.
97. Obeagu EI. A Review of Challenges and Coping Strategies Faced by HIV/AIDS Discordant Couples. Madonna University journal of Medicine and Health Sciences. 2023; 3 (1): 7-12.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

98. Oloro OH, Obeagu EI. A Systematic Review on Some Coagulation Profile in HIV Infection. International Journal of Innovative and Applied Research. 2022;10(5):1-11.
99. Nwosu DC, Obeagu EI, Nkwuocha BC, Nwanna CA, Nwanjo HU, Amadike JN, Ezemma MC, Okpomeshine EA, Ozims SJ, Agu GC. Alterations in superoxide dismutiase, vitamins C and E in HIV infected children in Umuahia, Abia state. International Journal of Advanced Research in Biological Sciences. 2015;2(11):268-271.
100. Obeagu EI, Malot S, Obeagu GU, Ugwu OP. HIV resistance in patients with Sickle Cell Anaemia. Newport International Journal of Scientific and Experimental Sciences (NIJSES). 2023;3(2):56-59.
101. Ifeanyi OE, Uzoma OG, Stella EI, Chinedum OK, Abum SC. Vitamin D and insulin resistance in HIV sero positive individuals in Umudike. Int. J. Curr. Res. Med. Sci. 2018;4(2):104-108.
102. Ifeanyi OE, Leticia OI, Nwosu D, Chinedum OK. A Review on blood borne viral infections: universal precautions. Int. J. Adv. Res. Biol. Sci. 2018;5(6):60-66.
103. Nwovu AI, Ifeanyi OE, Uzoma OG, Nwebonyi NS. Occurrence of Some Blood Borne Viral Infection and Adherence to Universal Precautions among Laboratory Staff in Federal Teaching Hospital Abakaliki Ebonyi State. Arch Blood Transfus Disord. 2018;1(2).
104. Chinedu K, Takim AE, Obeagu EI, Chinazor UD, Eloghosa O, Ojong OE, Odunze U. HIV and TB co-infection among patients who used Directly Observed Treatment Short-course centres in Yenagoa, Nigeria. IOSR J Pharm Biol Sci. 2017;12(4):70-75.
105. Offie DC, Obeagu EI, Akueshi C, Njab JE, Ekanem EE, Dike PN, Oguh DN. Facilitators and barriers to retention in HIV care among HIV infected MSM attending Community Health Center Yaba, Lagos Nigeria. Journal of Pharmaceutical Research International. 2021;33(52B):10-19.
106. Obeagu EI, Obeagu GU, Ede MO, Odo EO, Buhari HA. Translation of HIV/AIDS knowledge into behavior change among secondary school adolescents in Uganda: A review. Medicine (Baltimore). 2023;102(49): e36599. doi: 10.1097/MD.0000000000036599. PMID: 38065920; PMCID: PMC10713174.
107. Anyiam AF, Arinze-Anyiam OC, Irondi EA, Obeagu EI. Distribution of ABO and rhesus blood grouping with HIV infection among blood donors in Ekiti State Nigeria. Medicine (Baltimore). 2023;102(47): e36342. doi: 10.1097/MD.0000000000036342. PMID: 38013335; PMCID: PMC10681551.
108. Echefu SN, Udosen JE, Akwiwu EC, Akpotuzor JO, Obeagu EI. Effect of Dolutegravir regimen against other regimens on some hematological parameters, CD4 count and viral load of people living with HIV infection in South Eastern Nigeria. Medicine (Baltimore). 2023;102(47): e35910. doi: 10.1097/MD.0000000000035910. PMID: 38013350; PMCID: PMC10681510.
109. Opeyemi AA, Obeagu EI. Regulations of malaria in children with human immunodeficiency virus infection: A review. Medicine (Baltimore). 2023;102(46):

e36166. doi: 10.1097/MD.0000000000036166. PMID: 37986340; PMCID: PMC10659731.
110. Alum EU, Obeagu EI, Ugwu OPC, Samson AO, Adepoju AO, Amusa MO. Inclusion of nutritional counseling and mental health services in HIV/AIDS management: A paradigm shift. Medicine (Baltimore). 2023;102(41): e35673. doi: 10.1097/MD.0000000000035673. PMID: 37832059; PMCID: PMC10578718.
111. Aizaz M, Abbas FA, Abbas A, Tabassum S, Obeagu EI. Alarming rise in HIV cases in Pakistan: Challenges and future recommendations at hand. Health Sci Rep. 2023;6(8): e1450. doi: 10.1002/hsr2.1450. PMID: 37520460; PMCID: PMC10375546.
112. Obeagu EI, Obeagu GU, Obiezu J, Ezeonwumelu C, Ogunnaya FU, Ngwoke AO, Emeka-Obi OR, Ugwu OP. Hematologic Support in HIV Patients: Blood Transfusion Strategies and Immunological Considerations. APPLIED SCIENCES (NIJBAS). 2023;3(3).
113. Obeagu EI, Ubosi NI, Uzoma G. Storms and Struggles: Managing HIV Amid Natural Disasters. Int. J. Curr. Res. Chem. Pharm. Sci. 2023;10(11):14-25.
114. Obeagu EI, Obeagu GU. Human Immunodeficiency Virus and tuberculosis infection: A review of prevalence of associated factors. Int. J. Adv. Multidiscip. Res. 2023;10(10):56-62.
115. Obeagu EI, Malot S, Obeagu GU, Ugwu OP. HIV resistance in patients with Sickle Cell Anaemia. Newport International Journal of Scientific and Experimental Sciences (NIJSES). 2023;3(2):56-9.
116. Alum EU, Ugwu OP, Obeagu EI, Aja PM, Okon MB, Uti DE. Reducing HIV Infection Rate in Women: A Catalyst to reducing HIV Infection pervasiveness in Africa. International Journal of Innovative and Applied Research. 2023;11(10):01-6.
117. Obeagu EI, Obeagu GU. Unmasking the Truth: Addressing Stigma in the Fight Against HIV. Elite Journal of Public Health. 2024;2(1):8-22.
118. Obeagu EI, Obeagu GU, Okwuanaso CB. Optimizing Immune Health in HIV Patients through Nutrition: A Review. Elite Journal of Immunology. 2024;2(1):14-33.
119. Obeagu EI, Obeagu GU. Utilization of immunological ratios in HIV: Implications for monitoring and therapeutic strategies. Medicine. 2024;103(9):e37354.
120. Obeagu EI, Obeagu GU. CD8 Dynamics in HIV Infection: A Synoptic Review. Elite Journal of Immunology. 2024;2(1):1-3.
121. Obeagu EI, Obeagu GU. Implications of B Lymphocyte Dysfunction in HIV/AIDS. Elite Journal of Immunology. 2024;2(1):34-46.
122. Obeagu EI, Obeagu GU. Maternal Influence on Infant Immunological Responses to HIV: A Review. Elite Journal of Laboratory Medicine. 2024;2(1):46-58.
123. Obeagu EI, Obeagu GU. Understanding B Lymphocyte Functions in HIV Infection: Implications for Immune Dysfunction and Therapeutic Strategies. Elite Journal of Medicine. 2024;2(1):35-46.
124. Obeagu EI, Obeagu GU. Platelet-Driven Modulation of HIV: Unraveling Interactions and Implications. Journal home page: http://www. journalijiar. com.;12(01).

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

125. Obeagu EI, Anyiam AF, Obeagu GU. Managing Hematological Complications in HIV: Erythropoietin Considerations. Elite Journal of HIV. 2024;2(1):65-78.
126. Obeagu EI, Obeagu GU, Hauwa BA, Umar AI. Hematocrit Variations in HIV Patients Co-infected with Malaria: A Comprehensive Review. Journal home page: http://www. journalijiar. com.;12(01).
127. ObeaguEI AA, Obeagu GU. Synergistic Effects of Blood Transfusion and HIV in Children Under 5 Years with Severe Malaria: A Review. Elite Journal of HIV. 2024;2(1):31-50.
128. Obeagu EI, Anyiam AF, Obeagu GU. Unveiling B Cell Mediated Immunity in HIV Infection: Insights, Challenges, and Potential Therapeutic Avenues. Elite Journal of HIV. 2024;2(1):1-5.
129. Obeagu EI, Obeagu GU. Hematocrit Fluctuations in HIV Patients Co-infected with Malaria Parasites: A Comprehensive Review. Int. J. Curr. Res. Med. Sci. 2024;10(1):25-36.
130. Obeagu EI, Obeagu GU. Transfusion Therapy in HIV: Risk Mitigation and Benefits for Improved Patient Outcomes. Sciences. 2024;4(1):32-7.
131. Obeagu EI, Obeagu GU. Mental Health and Psychosocial Effects of natural disaster on HIV Patients. Sciences. 2024;4(1):38-44.
132. Obeagu EI, Obeagu GU. Eosinophil-Associated Changes in Neonatal Thymic T Regulatory Cell Populations in HIV-Infected Pregnancies. Elite Journal of Health Science. 2024;2(1):33-42.
133. Obeagu EI, Obeagu GU. Advances in Understanding the Impact of Blood Transfusion on Anemia Resolution in HIV-Positive Children with Severe Malaria: A Comprehensive Review. Elite Journal of Haematology. 2024;2(1):26-41.
134. Obeagu EI, Ayogu EE, Obeagu GU. Interactions between Blood Transfusion and Antiretroviral Medications: Implications for Patient Care. Elite Journal of Medicine. 2024;2(2):104-15.
135. Obeagu EI, Obeagu GU. Maternal Eosinophilic Responses in HIV-Positive Pregnant Women: Unraveling Immunological Dynamics for Improved Maternal-Fetal Health. Elite Journal of Immunology. 2024;2(1):47-64.
136. Obeagu EI, Anyanwu CN, Obeagu GU. Challenges and Considerations in Managing Blood Transfusion for Individuals with HIV. Elite Journal of HIV. 2024;2(2):1-7.
137. Obeagu EI, Ubosi NI, Obeagu GU, Akram M. Early Infant Diagnosis: Key to Breaking the Chain of HIV Transmission. Elite Journal of Public Health. 2024;2(1):52-61.
138. Obeagu EI, Obeagu GU. Understanding Hematocrit Fluctuations in HIV-Malaria Coinfection for Improved Management. Elite Journal of Public Health. 2024;2(1):22-34.
139. Obeagu EI, Obeagu GU. The Impact of Erythropoietin on Preeclampsia in HIV-Positive Women: A Review. Elite Journal of Nursing and Health Science. 2024;2(1):21-31.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41

140. Obeagu EI, Obeagu GU. Platelet Distribution Width (PDW) as a Prognostic Marker for Anemia Severity in HIV Patients: A Comprehensive Review. Journal home page: http://www. journalijiar. com.;12(01).
141. Madzime M, Rossouw TM, Theron AJ, Anderson R, Steel HC. Interactions of HIV and antiretroviral therapy with neutrophils and platelets. Frontiers in immunology. 2021; 12:634386.
142. Khawaja AA, Taylor KA, Lovell AO, Nelson M, Gazzard B, Boffito M, Emerson M. HIV antivirals affect endothelial activation and endothelial-platelet crosstalk. Circulation Research. 2020;127(11):1365-1380.
143. Laurence J, Elhadad S, Ahamed J. HIV-associated cardiovascular disease: importance of platelet activation and cardiac fibrosis in the setting of specific antiretroviral therapies. Open Heart. 2018;5(2):e000823.
144. Akinosoglou K, Kolosaka M, Schinas G, Delastic AL, Antonopoulou S, Perperis A, Marangos M, Mouzaki A, Gogos C. Association of Antiretroviral Therapy with Platelet Function and Systemic Inflammatory Response in People Living with HIV: A Cross-Sectional Study. Microorganisms. 2023;11(4):958.
145. Reno TA, Tarnus L, Tracy R, Landay AL, Sereti I, Apetrei C, Pandrea I. The youngbloods. Get together. Hypercoagulation, complement, and NET formation in HIV/SIV pathogenesis. Frontiers in Virology. 2022; 1:795373.

Citation: Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. *Elite Journal of Haematology, 2024; 2(3):* 25-41